



# Toll Bridge Seismic Retrofit and Regional Measure 1 Programs

## Monthly Progress Report February 2007

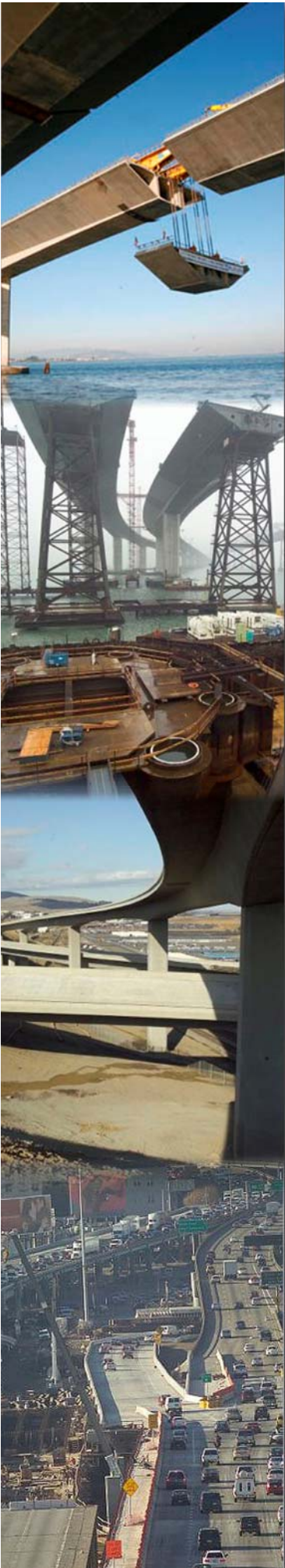


TOLL BRIDGE PROGRAM  
OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

Released: March 2007

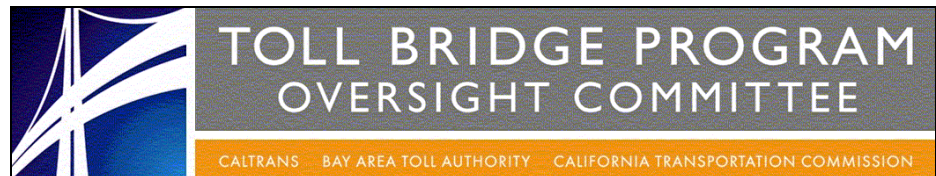




# Toll Bridge Seismic Retrofit and Regional Measure 1 Programs

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Monthly Progress Report  
February 2007





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## Toll Bridges of the San Francisco Bay Area



\* Under the Jurisdiction of the Golden Gate Bridge, Highway and Transportation District

## INTRODUCTION

In July 2005, Assembly Bill 144, Hancock (AB 144) created the Toll Bridge Project Oversight Committee (TBPOC) to implement a project oversight and project control process for the Benicia-Martinez Bridge project and the state toll bridge seismic retrofit program projects. Comprised of the Caltrans Director, the Bay Area Toll Authority (BATA) Executive Director and the Executive Director of the California Transportation Commission (CTC), the TBPOC's project oversight and control processes include but are not limited to reviewing bid specifications and documents, providing field staff to review ongoing costs, reviewing and approving significant change orders and claims in excess of \$1 million (as defined by the committee) and preparing project reports.

AB 144 identified the Toll Bridge Seismic Retrofit Program and the new Benicia-Martinez Bridge Project as being under the direct oversight of the TBPOC. The Toll Bridge Seismic Retrofit Program includes:

Toll Bridge Seismic Retrofit Projects	Seismic Safety Status
San Francisco-Oakland Bay Bridge East Span Replacement	Construction
San Francisco-Oakland Bay Bridge West Approach Replacement	Construction
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit	Complete
San Mateo-Hayward Bridge Seismic Retrofit	Complete
Richmond-San Rafael Bridge Seismic Retrofit	Complete
Eastbound Carquinez Bridge Seismic Retrofit	Complete
Benicia-Martinez Bridge Seismic Retrofit	Complete
San Diego-Coronado Bridge Seismic Retrofit	Complete
Vincent Thomas Bridge Seismic Retrofit	Complete

The new Benicia-Martinez Bridge is part of a larger program of toll-funded projects, called the Regional Measure 1 (RM1) Toll Bridge Program, under the responsibility of the BATA. While the rest of the projects in the RM1 program are not directly under the responsibility of the TBPOC, BATA and Caltrans (CT) will continue to report on their progress as an informational item. The RM1 program includes:

RM1 Projects	Open to Traffic Status
New Benicia-Martinez Bridge	Construction
1927 Carquinez Bridge Demolition	Construction
Interstate 880/State Route 92 Interchange Reconstruction	Advertised
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Open
Richmond-San Rafael Bridge Trestle, Fender & Deck Joint Rehabilitation	Open
Westbound Carquinez Bridge Replacement	Open
San Mateo-Hayward Bridge Widening	Open
State Route 84 Bayfront Expressway Widening	Open
Richmond Parkway	Open

This report focuses on identifying critical project issues and monitoring project cost and schedule performance for the projects as measured against approved budgets and schedule milestones. This report is intended to fulfill Caltrans' requirement to provide monthly project progress reporting to the TBPOC under Section 30952.05 of the Streets and Highway Code.

## EXECUTIVE SUMMARY

## Toll Bridge Seismic Retrofit Program—Cost (\$Millions)

Project	Work Status	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast*	At- Completion Variance	Cost Status
a	b	c	d	e = c + d	f	g	h = g - e	i
<b>SFOBB East Span Replacement Project</b>								
Capital Outlay Support		959.4	-	959.4	474.0	977.1	17.7	●
Capital Outlay Construction								
Skyway	Construction	1,293.0	-	1,293.0	1,119.5	1,293.0	-	●
SAS E2/T1 Foundations	Construction	313.5	-	313.5	199.3	313.5	-	●
SAS Superstructure	Construction	1,753.7	-	1,753.7	219.6	1,767.4	13.7	●
YBI South/South Detour	Design/Const	131.9	-	131.9	39.5	334.4	202.5	●
YBI Transition Structures	Design	299.3	-	299.3	-	276.1	(23.2)	●
Oakland Touchdown (OTD)		283.8	-	283.8	-	302.5	18.7	
* OTD Submarine Cable	Construction	-	-	-	-	9.6	-	●
* OTD No. 1 (Westbound)	Advertised	-	-	-	-	226.5	-	●
* OTD No. 2 (Eastbound)	Design	-	-	-	-	62.0	-	●
* OTD Electrical Systems	Design	-	-	-	-	4.4	-	●
Existing Bridge Demolition	Design	239.2	-	239.2	-	222.0	(17.2)	●
Stormwater Treatment Measures	Construction	15.0	-	15.0	7.3	15.0	-	●
East Span Completed Projects		90.3	-	90.3	89.2	90.3	-	
Right-of-Way and Environmental Mitigation		72.4	-	72.4	38.8	72.4	-	●
Other Budgeted Capital		35.1	-	35.1	0.6	11.0	(24.1)	
<b>Total SFOBB East Span Replacement Project</b>		<b>5,486.6</b>	<b>-</b>	<b>5,486.6</b>	<b>2,187.8</b>	<b>5,674.7</b>	<b>188.1</b>	
<b>SFOBB West Approach Replacement</b>	Construction							●
Capital Outlay Support		120.0	-	120.0	88.2	120.0	-	
Capital Outlay Construction		309.0	-	309.0	226.6	309.0	-	
<b>Total SFOBB West Approach Replacement</b>		<b>429.0</b>	<b>-</b>	<b>429.0</b>	<b>314.8</b>	<b>429.0</b>	<b>-</b>	
<b>Richmond-San Rafael Bridge Retrofit</b>	Complete							●
Capital Outlay Support		134.0	(7.0)	127.0	125.8	127.0	-	
Capital Outlay Construction & Right-of-Way		780.0	(82.0)	698.0	665.6	698.0	-	
<b>Total Richmond-San Rafael Bridge Retrofit</b>		<b>914.0</b>	<b>(89.0)</b>	<b>825.0</b>	<b>791.4</b>	<b>825.0</b>	<b>-</b>	
<b>Program Completed Projects</b>	Complete							
Capital Outlay Support		219.8	-	219.8	219.4	219.8	-	
Capital Outlay Construction		705.6	-	705.6	698.1	705.6	-	
<b>Total Program Completed Projects</b>		<b>925.4</b>	<b>-</b>	<b>925.4</b>	<b>917.5</b>	<b>925.4</b>	<b>-</b>	
<b>Miscellaneous Program Costs</b>		<b>30.0</b>	<b>-</b>	<b>30.0</b>	<b>24.7</b>	<b>30.0</b>	<b>-</b>	
<b>Program Contingency</b>		<b>900.0</b>	<b>89.0</b>	<b>989.0</b>	<b>-</b>	<b>800.9</b>	<b>(188.1)</b>	
<b>Total Toll Bridge Seismic Retrofit Program</b>		<b>8,685.0</b>	<b>-</b>	<b>8,685.0</b>	<b>4,236.2</b>	<b>8,685.0</b>	<b>-</b>	

● Within Approved Current Schedule and Budget

● Potential Cost and Schedule Impacts: Possible future need for Program Contingency Allocation

● Known Cost and Schedule Impacts: Request for Program Contingency Allocation forthcoming

Note: Details may not sum to totals due to rounding effects.

\* Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with Risk Analysis assessments for the TBSRP Projects and the TBSRP Quarterly Reports.

\*BATA will consider approval of a budget change for the South/South Detour and YBI Transition Structure Contracts in Fiscal Year 2006-2007.



## Toll Bridge Seismic Retrofit Program—Schedule

Project	AB 144 / SB 66 Project Complete Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (01/2007)	Project Complete Schedule Forecast (01/2007)	Schedule Variance (Months)	Schedule Status	Remarks
a	b	c	d = b + c	e	f = e - d	g	h
SFOBB East Span Replacement Project Skyway	Apr 07	8	Dec 07	Dec 07	-	●	See page 10.
SAS E2/T1 Foundations	Jun 08	(3)	Mar 08	Mar 08	-	●	
SAS Superstructure	Mar 12	12	Mar 13	Mar 13	-	●	See Note.
YBI South/South Detour	Jul 07	36	Jun 10	Jun 10	-	●	See discussion on pages 18, 19 and 20.
YBI Transition Structures	Nov 13	12	Nov 14	Nov 14	-	●	See discussion on pages 18, 19 and 20.
Oakland Touchdown (OTD)	Nov 13	12	Nov 14	Nov 14	-	●	
• OTD Submarine Cable	n/a		Jan 08	Jan 08	-	●	Contract was awarded on January 11, 2007. See pages 9 and 21.
• OTD Westbound	n/a		Jul 09	Oct 09	3	●	
• OTD Eastbound	n/a		Nov 14	Nov 14	-	●	See Note.
Existing Bridge Demolition	Sep 14	12	Sep 15	Sep 15	-	●	See Note.
Stormwater Treatment Measures	Mar 08	-	Mar 08	Jun 07	(9)	●	Forecast based on actual award date and duration in contractor's A+B bid.
Open to Traffic Date: Westbound	Sep 11	12	Sep 12	Sep 12	-	●	See Note.
Open to Traffic Date: Eastbound	Sep 12	12	Sep 13	Sep 13	-	●	See Note.
SFOBB West Approach Replacement	Aug 09	-	Aug 09	Aug 09	-	●	
Richmond-San Rafael Bridge							
• Seismic Retrofit	Aug 05	-	Aug 05	Oct 05	2	●	Seismic retrofit completed July 29, 2005. Formal acceptance of contract October 28, 2005. \$89 million has been transferred to Program Contingency. See page 32.
• Public Access Project	n/a	-	May 07	May 07	-	●	

*Note: Schedules for selected projects and the Open to Traffic dates were extended by 12 months from the AB144/SB66 baseline schedule due to Addenda #5 and #7 on the SAS Superstructure contract.*

## Regional Measure 1 Program—Cost (\$Millions)

Project	Work Status	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast*	At- Completion Variance	Cost Status
a	b	c	d	e = c + d	f	g	h = g - e	i
<b>New Benicia-Martinez Bridge Project</b>	Construction							●
Capital Outlay Support		157.1	24.8	181.8	164.2	181.8	-	
Capital Outlay Construction		861.6	143.1	1,004.7	899.7	1,004.7	-	
Capital Outlay Right-of-Way		20.4	(0.1)	20.3	12.3	20.3	-	
Project Reserve		20.8	35.3	56.2	-	56.2	-	
<b>Total New Benicia-Martinez Bridge Project</b>		<b>1,059.9</b>	<b>203.1</b>	<b>1,263.0</b>	<b>1,076.2</b>	<b>1,263.0</b>	<b>-</b>	
<b>Carquinez Bridge Replacement Project</b>	Construction							●
Capital Outlay Support		124.4	(1.1)	123.3	118.5	123.2	(0.1)	
Capital Outlay Construction		381.2	3.3	384.5	366.6	384.3	(0.2)	
Capital Outlay Right-of-Way		10.5	-	10.5	9.9	10.5	-	
Project Reserve		12.1	(2.2)	9.9	-	10.2	0.3	
<b>Total Carquinez Bridge Replacement Project</b>		<b>528.2</b>	<b>-</b>	<b>528.2</b>	<b>495.0</b>	<b>528.2</b>	<b>-</b>	
<b>I-880/SR-92 Interchange Reconstruction</b>	Advertised							●
Capital Outlay Support		28.8	-	28.8	30.7	51.7	22.9	
Capital Outlay Construction		94.8	-	94.8	-	122.5	27.7	
Capital Outlay Right-of-Way		9.9	-	9.9	8.1	12.4	2.5	
Project Reserve		0.3	-	0.3	-	9.7	9.4	
<b>Total I-880/SR-92 Interchange Reconstruction</b>		<b>133.8</b>	<b>-</b>	<b>133.8</b>	<b>38.8</b>	<b>196.3</b>	<b>62.5</b>	
<b>Program Completed Projects</b>	Complete							
Capital Outlay Support		62.0	(4.0)	58.0	57.2	59.9	1.9	
Capital Outlay Construction		324.4	2.5	326.9	290.5	317.3	(9.6)	
Capital Outlay Right-of-Way		1.7	-	1.7	0.5	0.8	(0.9)	
Project Reserve		2.6	1.5	4.1	-	1.8	(2.3)	
<b>Total Program Completed Projects</b>		<b>390.7</b>	<b>-</b>	<b>390.7</b>	<b>348.2</b>	<b>379.8</b>	<b>(10.9)</b>	
<b>Total Regional Measure 1 Program</b>		<b>2,112.6</b>	<b>203.1</b>	<b>2,315.7</b>	<b>1,958.2</b>	<b>2,367.3</b>	<b>51.6</b>	

● Within Approved Current Schedule and Budget

● Potential Cost and Schedule Impacts: Possible future need for Program Contingency Allocation

● Known Cost and Schedule Impacts: Request for Program Contingency Allocation forthcoming

Note: Details may not sum to totals due to rounding effects.

\* Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with Risk Analysis assessments for the TBSRP Projects and the TBSRP Quarterly Reports.

\*BATA will consider approval of a budget change for the South/South Detour and YBI Transition Structure Contracts in Fiscal Year 2006-2007.

## Regional Measure 1 Program—Schedule

Project	BATA Project Complete Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (01/2007)	Project Complete Schedule Forecast (01/2007)	Schedule Variance (Months)	Schedule Status	Remarks
a	b	c	d= b + c	e	f= e - d	g	h
<b>New Benicia-Martinez Bridge Project</b>							
• New Benicia-Martinez Bridge	Dec 07	-	Dec 07	Dec 07	-	●	
• I-680/I-780 Interchange Replacement	Dec 07	-	Dec 07	Feb 08	2	●	Final electrical work to be completed after Bridge Open to Traffic. Structure was substantially completed as of December 1, 2006. See page 43.
• Open to Traffic Date	Dec 07	-	Dec 07	Dec 07	-	●	
<b>1927 Carquinez Bridge Demolition Project</b>	Dec 07	-	Dec 07	Dec 07	-	●	
<b>I-880/SR-92 Interchange Reconstruction</b>	Nov 10	-	Nov 10	Jun 11	7	●	Delay in the procurement of right-of-way is impacting the cost/schedule for this project. See page 47.

## Highlights of Project/Program Activities and TBPOC Actions for February 2007

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### Toll Bridge Seismic Retrofit Program

#### SFOBB East Span Seismic Replacement Project

- ◆ The TBPOC approved on February 15, 2007 to advance foundation and retrofit work from the Yerba Buena Island Transition Structures (YBITS) contract to the South/South Detour contract. Advancing the work will reduce overall project schedule risk by taking work off the critical path for the East Span project while making more effective use of the extended SSD contract duration, and will enable potential acceleration of the SAS construction pending negotiation with American Bridge. Advancing the transition structure work, completing the tie-in work under Caltrans design, and pacing of the remaining SSD work will result in a net \$180 million increase in the project costs from the approved budget. The increase will be covered by the existing program contingency and will not increase the AB144 program budget. (see page 18).
- ◆ On the Self-Anchored Suspension Span (SAS) Superstructure Contract, the American Bridge/Flour Joint Venture (ABF) submitted a baseline schedule to Caltrans for review on February 2, 2007. Zhenhua Port Machinery Company (ZPMC) of Shanghai, China is currently setting up their facilities to fabricate the steel tower and deck sections. ZPMC is preparing initial test mock-ups of the sections and plans to begin production fabrication later in 2007. ABF completed the design of the crane barge to be used to lift the heavy tower and deck sections. Barge fabrication has started in Oregon (see page 15).
- ◆ On the SAS Marine Foundations Contract, all 13 rock sockets that tie the SAS tower foundation (T1) to bedrock have been installed. The T1 footing box has been fabricated and is being shipped to the Bay Area via the Panama Canal from Texas (see page 13).
- ◆ On the Submerged Electrical Cable Relocation Contract, Caltrans approved the contract on January 22, 2007. The contractor has submitted a purchase order to procure the two cables to be installed from Oakland to Treasure Island. The cables will be fabricated in Italy and shipped to the US for installation later in 2007 (see page 21).
- ◆ On the Oakland Touchdown #1 (OTD1) contract, Caltrans advertised the contract on February 26, 2007. Bid opening is scheduled for June 5, 2007 (see page 22).

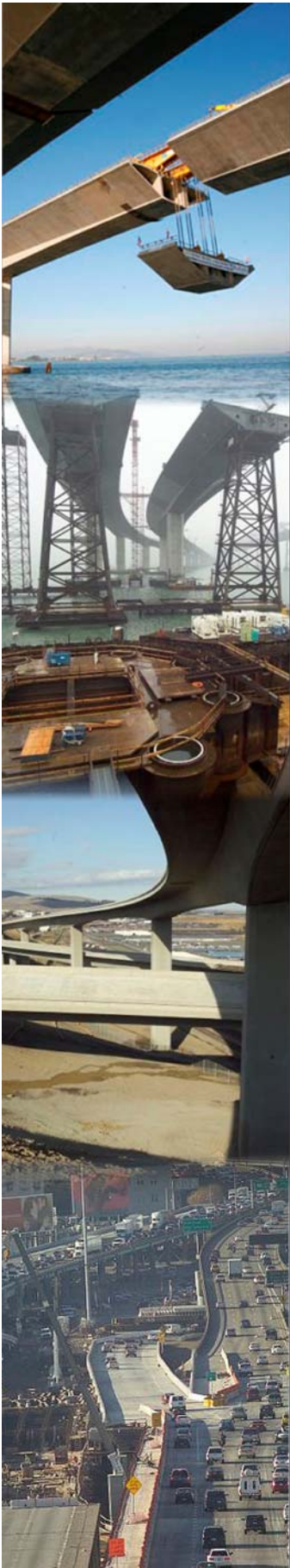
#### SFOBB West Approach Seismic Retrofit Project

- ◆ In late March to early April 2006, Caltrans plans to shift the eastbound Interstate 80 (I-80) traffic alignment under the new westbound structure from the Fifth Street to Second Street in San Francisco to allow for the demolition and reconstruction of the eastbound structure along Bryant Street. No closures of the Bay Bridge will be necessary for the traffic shift (see page 27).

### Regional Measure 1 Program

#### I-880/SR-92 Interchange Project

- ◆ Caltrans advertised this contract on January 8, 2007. Bid opening is scheduled for May 5, 2007 pending right-of-way certification clearance in April 2007. Expected duration of this particular project is for four (4) years. (see page 47).



## PROJECT / CONTRACT REPORTS

### Toll Bridge Seismic Retrofit Program

#### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Summary

- Skyway Contract
- Self-Anchored Suspension (SAS) E2/T1 Foundations Contract
- Self-Anchored Suspension (SAS) Superstructure Contract
- Yerba Buena Island (YBI)
  - \* Yerba Buena Island (YBI) South/South Detour Contract
  - \* Yerba Buena Island (YBI) Transition Structure Contracts
- Oakland Touchdown (OTD)
  - \* Oakland Touchdown (OTD) Submarine Cable Relocation Contract
  - \* Oakland Touchdown (OTD) #1 Contract
  - \* Oakland Touchdown (OTD) #2 Contract
- Other Major Contracts
- Other Contracts and Related Project Work

#### San Francisco-Oakland Bay Bridge (SFOBB) West Approach Replacement Project

#### Richmond-San Rafael Bridge Seismic Retrofit Project

#### Other Completed Seismic Retrofit Projects



## Toll Bridge Seismic Retrofit Program

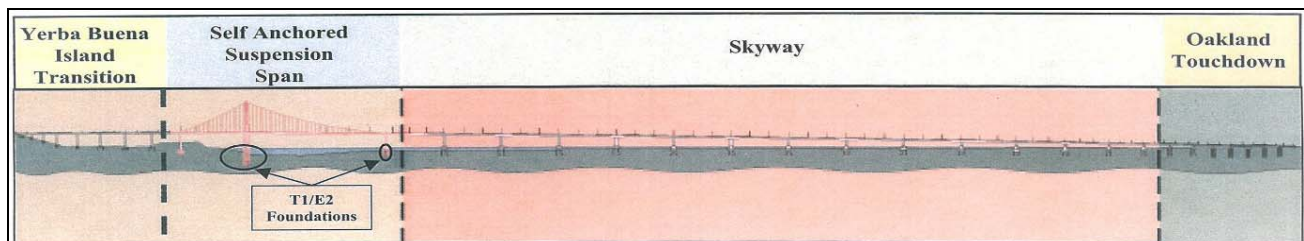
**San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Summary**

**Project Description:** The East Span will be seismically retrofitted through the complete replacement of the existing span. The remaining effort for this project consists of the following contracts: Skyway—construction of two parallel concrete structures, each approximately 1.3 miles in length; Self-Anchored Suspension (SAS) Foundation—construction of SAS marine foundations; SAS Superstructure—construction of a self-anchored 385-meter main span superstructure incorporating a 160-meter fabricated structural steel tower with a main cable and inclined suspenders that will support steel orthotropic decks; Yerba Buena Island (YBI) South/South Detour—design and construction of a temporary double-deck bypass structure that will detour traffic to the existing SFOBB while completing the westerly permanent tie-in structure of the new East Span at Yerba Buena Island; YBI Structures—construction of a new structure connecting the western end of the self-anchored suspension to the Yerba Buena Island viaduct, which will be retrofitted; Oakland Touchdown—at the Oakland end of the East Span, construction of two parallel, cast-in-place post-tensioned concrete viaducts, which join the skyway to the at-grade Oakland approach fill; and Existing Bridge Demolition—demolition of the existing 1936 SFOBB East Span structure after the construction and placement of traffic onto the new East Span.

**SFOBB East Span Replacement Cost Summary (\$Millions)**

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	959.4	-	959.4	474.0	977.1	17.7
Capital Outlay	-	-	-	-	-	-
Skyway	1,293.0	-	1,293.0	1,119.5	1,293.0	-
SAS E2/T1 Foundations	313.5	-	313.5	199.3	313.5	-
SAS Superstructure	1,753.7	-	1,753.7	219.6	1,767.4	13.7
YBI South/South Detour	131.9	-	131.9	39.5	334.4	202.5
YBI Structures	299.3	-	299.3	-	276.1	(23.2)
Oakland Touchdown (OTD)	283.8	-	283.8	-	302.5	18.7
* OTD Submarine Cable				-	9.6	-
* OTD No. 1 (Westbound)				-	226.5	-
* OTD No. 2 (Eastbound)				-	62.0	-
* OTD Electrical Systems				-	4.4	-
Existing Bridge Demolition	239.2	-	239.2	-	222.0	(17.2)
Stormwater Treatment Measures	15.0	-	15.0	7.3	15.0	-
East Span Completed Projects	90.3	-	90.3	89.2	90.3	-
Right-of-Way and Environmental Mitigation	72.4	-	72.4	38.8	72.4	-
Other Budgeted Capital	35.1	-	35.1	0.6	11.0	(24.1)
<b>TOTAL</b>	<b>5,486.6</b>	<b>-</b>	<b>5,486.6</b>	<b>2,187.8</b>	<b>5,674.7</b>	<b>188.1</b>

Note: Details may not sum to totals due to rounding effects.



SFOBB East Span Replacement Project

**SFOBB East Span Replacement Schedule Summary**

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)
Skyway	April 2007	8	December 2007	December 2007	-
YBI South / South Detour*	July 2007	36	June 2010	June 2010	-
Stormwater Treatment Measures	March 2008	-	March 2008	June 2007	(9)
SAS E2/T1 Foundations	June 2008	(3)	March 2008	March 2008	-
Open to Traffic: Westbound	September 2011	12	September 2012	September 2012	-
SAS Superstructure	March 2012	12	March 2013	March 2013	-
Open to Traffic: Eastbound	September 2012	12	September 2013	September 2013	-
Oakland Touchdown (OTD)	December 2013	12	December 2014	December 2014	-
* OTD Submarine Cable	n/a		January 2008	January 2008	-
* OTD No. 1 (Westbound)	n/a		July 2009	October 2009	3
* OTD No. 2 (Eastbound)	n/a		November 2014	November 2014	-
YBI Transition Structure*	November 2013	12	November 2014	November 2014	-
Existing Bridge Demolition*	September 2014	12	September 2015	September 2015	-

\* Contract schedules being further assessed due to changes in SAS schedule.

**Project Status:** Construction is currently ongoing for the Skyway, YBI South/South Detour, SAS E2/T1 Foundations and Stormwater Treatment Measures contracts. Contracts in design include the OTD #1 (westbound), OTD #2 (eastbound), the YBI Transition Structure (YBITS) Contract #1, YBITS Contract #2 and Existing Bridge Demolition contract. Design of each contract is proceeding per its schedule requirements. On December 18, 2006, Caltrans opened bids for the Submarine Cable Relocation contract. Caltrans awarded the contract on January 11, 2007.

**Project Issues:** All projects except Demolition have a Risk Response Team and a Risk Register incorporating quantitative risk analyses. A preliminary risk register has also been developed for Capital Outlay Support (COS) costs, as well as a program-level risk register that captures risks common to all project. The development of a quantitative COS risk analysis is in progress. The Risk Response Teams have focused attention on developing and executing risk response actions for their most significant risks. Many of the actions have been effective, as evidenced by a reduction of risk impacts on the Skyway and E2/T1 contracts from the previous quarter. The effort to develop and execute risk response actions to mitigate the cost and schedule impacts posed by risk issues continues to be a high priority.

**Recent TBPOC Actions:** See the following contract detail pages for specific TBPOC actions on East Span contracts.

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► SKYWAY CONTRACT

**Contract Description:** The Skyway contract constructs two parallel pre-cast concrete approach spans from Oakland to the self-anchored suspension span near Yerba Buena Island.

#### Skyway Cost Summary (\$Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
East Span - Skyway						
Capital Outlay Support	197.0	-	197.0	156.0	197.0	-
Capital Outlay Construction	1,293.0	-	1,293.0	1,119.5	1,293.0	-
<b>TOTAL</b>	<b>1,490.0</b>	<b>-</b>	<b>1,490.0</b>	<b>1,275.5</b>	<b>1,490.0</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects.*

#### Skyway Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)
East Span - Skyway	April 2007	8	December 2007	December 2007	-

**Contract Status:** The Skyway contract is currently in construction and is 94% complete as of January 19, 2007. The foundation work is complete including the installation of the fenders around six of the pier footings. The eastbound and westbound structures are 100% complete with the erection of all segments. The last remaining segments on the westbound structure were erected on December 7, 2006. Remaining work includes final post-tensioning of the segments to tie the segments together, installation of the cantilevered bike path and service platforms, electrical work, and other punchlist work.

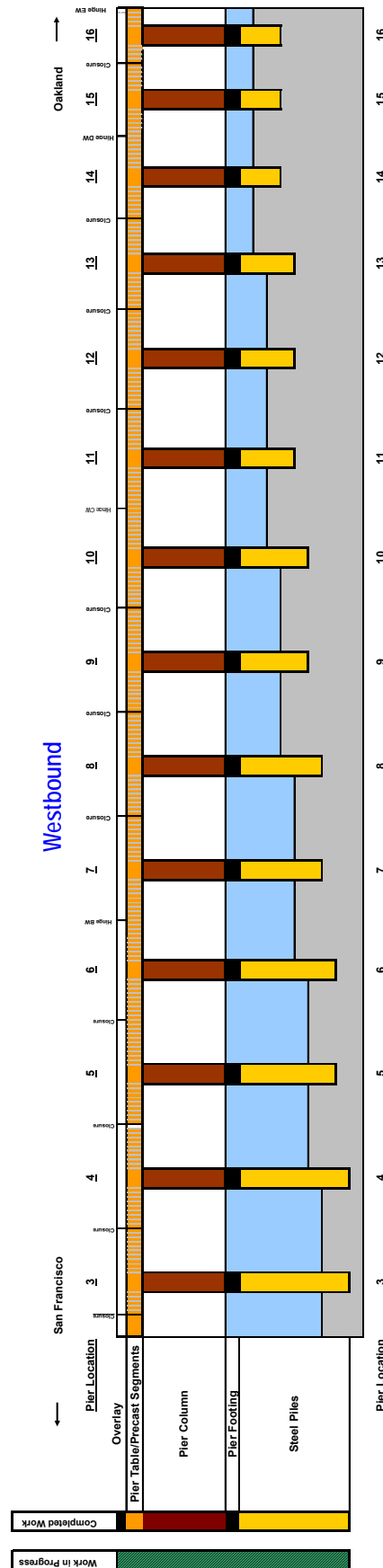
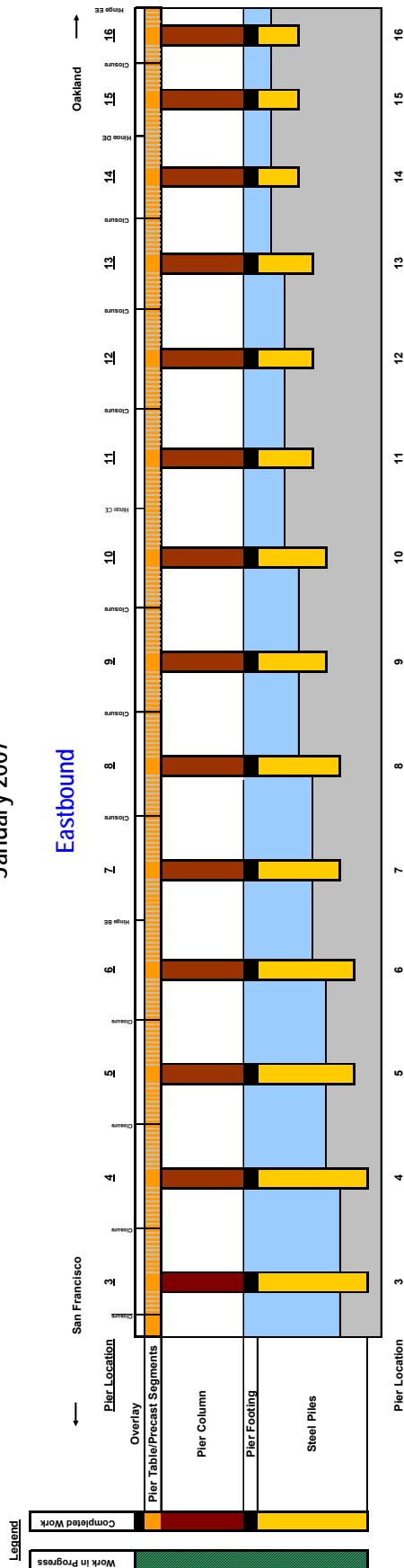
#### Contract Issues:

Issue	Mitigating Action
KFM issued 15 NOPC's on behalf of USI for welding issues related to the fabrication of the Steel Orthotropic Box Girders (SOBG).	USI completed the fabrication of the SOBG. All NOPC's filed were recommended to be heard by the Dispute Review Board.

**Recent TBPOC Actions:** None.

**Contract Photographs***Tower B Released from Orthotropic Box Girder**Temporary Towers Holding Orthotropic Box Girder**Skyway General View (1)**Skyway General View (2)**Skyway from Water Level (1)**Skyway from Water Level (2)*

# San Francisco-Oakland Bay Bridge East Span Replacement Project - Skyway Contract January 2007





## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► SELF-ANCHORED SUSPENSION (SAS) E2/T1 FOUNDATIONS CONTRACT

**Contract Description:** The Self-Anchored Suspension (SAS) E2/T1 Foundations contract constructs the main tower foundation at T1 and the adjacent east foundation at E2.

#### SAS E2/T1 Foundations Cost Summary (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
East Span - SAS E2 / T1 Foundations						
Capital Outlay Support	52.5	-	52.5	18.3	52.5	-
Capital Outlay Construction	313.5	-	313.5	199.3	313.5	-
<b>TOTAL</b>	<b>366.0</b>	<b>-</b>	<b>366.0</b>	<b>217.6</b>	<b>366.0</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects.

#### SAS E2/T1 Foundations Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)
East Span - SAS E2 / T1 Foundations	June 2008	(3)	March 2008	March 2008	-

**Contract Status:** The contract is 65% complete as of January 19, 2007. At the T1 Foundation, all 13 rock sockets that tie the SAS tower foundation (T1) to bedrock have been cast in place, with only punch list work remaining. The T1 footing box has been fabricated and is being shipped to the Bay Area via the Panama Canal from Texas with an arrival in the Bay Area scheduled for mid-March. At the E2 Foundation, all piles have been driven into place. Work is continuing on welding the pile heads, footing box, and connectors.

**Contract Issues:** None.

**Recent TBPOC Actions:** None.

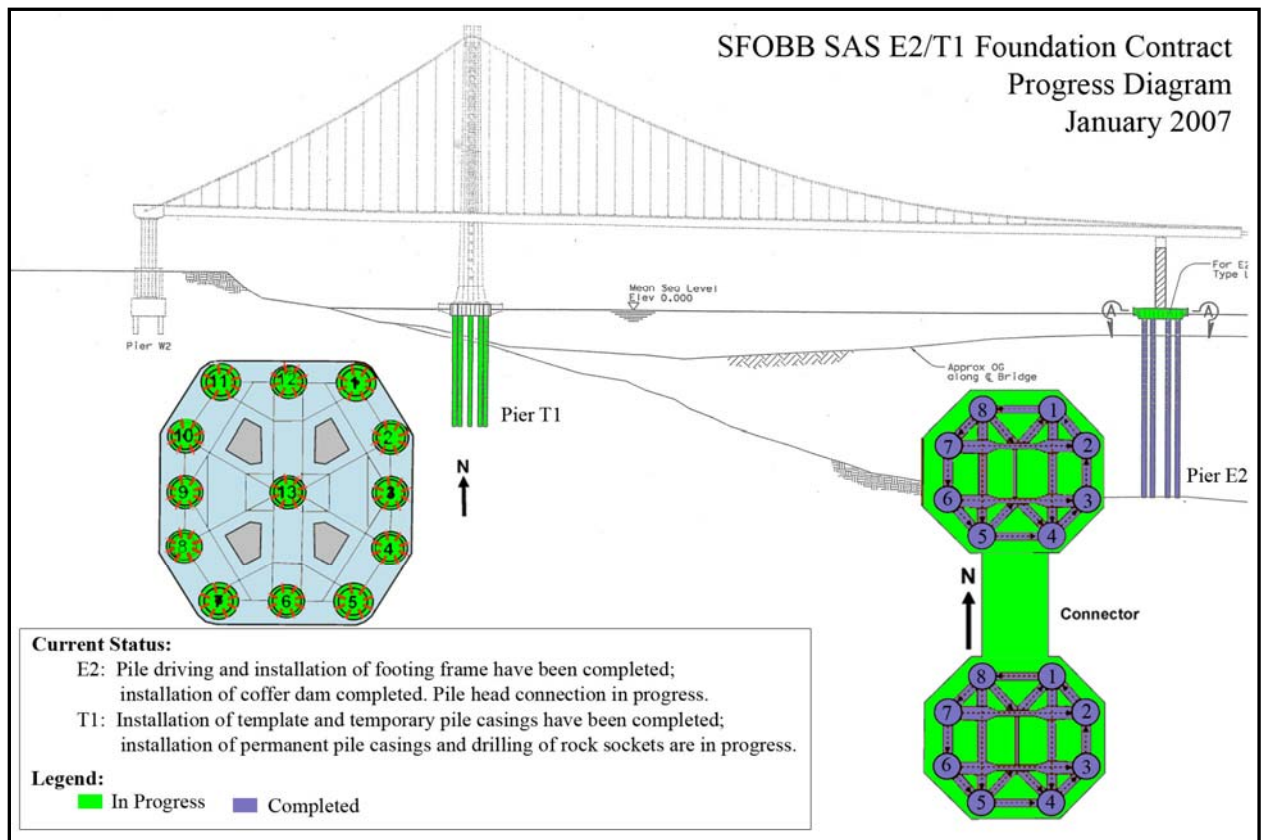


T1 Footing Box being barged through the Panama Canal



T1 Footing Box being barged through the Panama Canal

## Project Photographs



*Pier E2 shelter for pile head connection welding (1)*



*Pier E2 shelter for pile head connection welding (2)*

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► SELF-ANCHORED SUSPENSION (SAS) SUPERSTRUCTURE CONTRACT

**Contract Description:** The Self-Anchored Suspension (SAS) Superstructure contract constructs a signature tower span between the skyway and the Yerba Buena Island transition structure. Work on the SAS bridge has been split between three contracts—the SAS Superstructure (under construction), the SAS E2/T1 Foundation (under construction), and the SAS W2 Foundation (completed).

#### SAS Superstructure Cost Summary (\$Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	B	c	d = b + c	e	f	g = f - d
East Span - SAS Superstructure						
Capital Outlay Support	214.6	-	214.6	29.9	214.6	-
Capital Outlay Construction	1,753.7	-	1,753.7	219.6	1,767.4	13.7
<b>TOTAL</b>	<b>1,968.3</b>	<b>-</b>	<b>1,968.3</b>	<b>249.5</b>	<b>1,982.0</b>	<b>13.7</b>

*Note: Details may not sum to totals due to rounding effects.*

#### SAS Superstructure Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)
East Span - SAS Superstructure	March 2012	12	March 2013	March 2013	-

**Contract Status:** The contract is 15% complete as of January 19, 2007. The contractor, American Bridge Fluor Enterprises, Inc., a Joint Venture (ABF), continues to mobilize staff to the field office on Pier 7. ABF and their subcontractors have been preparing and submitting requests for information and submittals for Caltrans review and response, including the baseline schedule. ABF has completed the design of the crane barge to be used to lift the heavy tower and deck sections. Fabrication has started in Oregon on the barge.

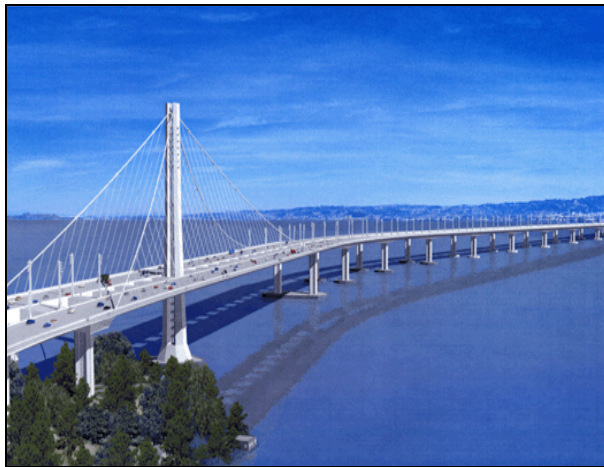
Zhenhua Port Machinery Company (ZPMC) of Shanghai, China is currently setting up their facilities to fabricate the steel tower and deck sections. ZPMC is preparing initial test mock-ups of the sections and plans to begin production fabrication later in 2007.

The forecast \$13.7 million increase in construction costs on the SAS contract, from the approved budget, reflects actions taken to encourage additional bidders on the contract.

**Contract Issues:**

Issue	Mitigating Action
Caltrans has identified the need for added resources to monitor work at the ZPMC steel fabrication facilities in China.	Caltrans and BATA are working together to set up facilities and to organize resources that will ensure an effective Owner's presence in the steel fabrication shops.
Potential for cost increases during construction due to steel plate conflicts. Applies to structural steel, including the towers and box girders.	Establish Working Drawing Campus with Contractor to facilitate discussion about conflicts and meet regularly. Caltrans has constructed models and identified conflicts, for which CCOs are to be prepared. The number of required mockups in the contract was reduced by addendum due to concerns about time for construction. Could continue to look at potential for mockups. Facilitated Cost Reduction Incentive Proposal (CRIP) sessions to discuss additional changes and improvements at the beginning of the contract.

**Recent TBPOC Actions:** None.

**Contract Photographs**

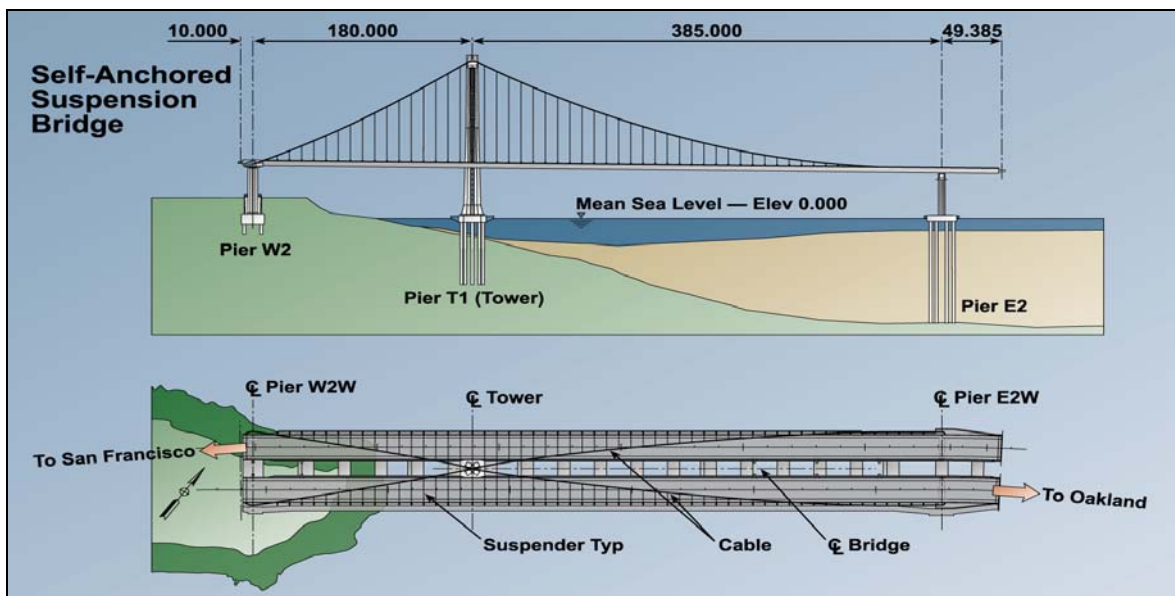
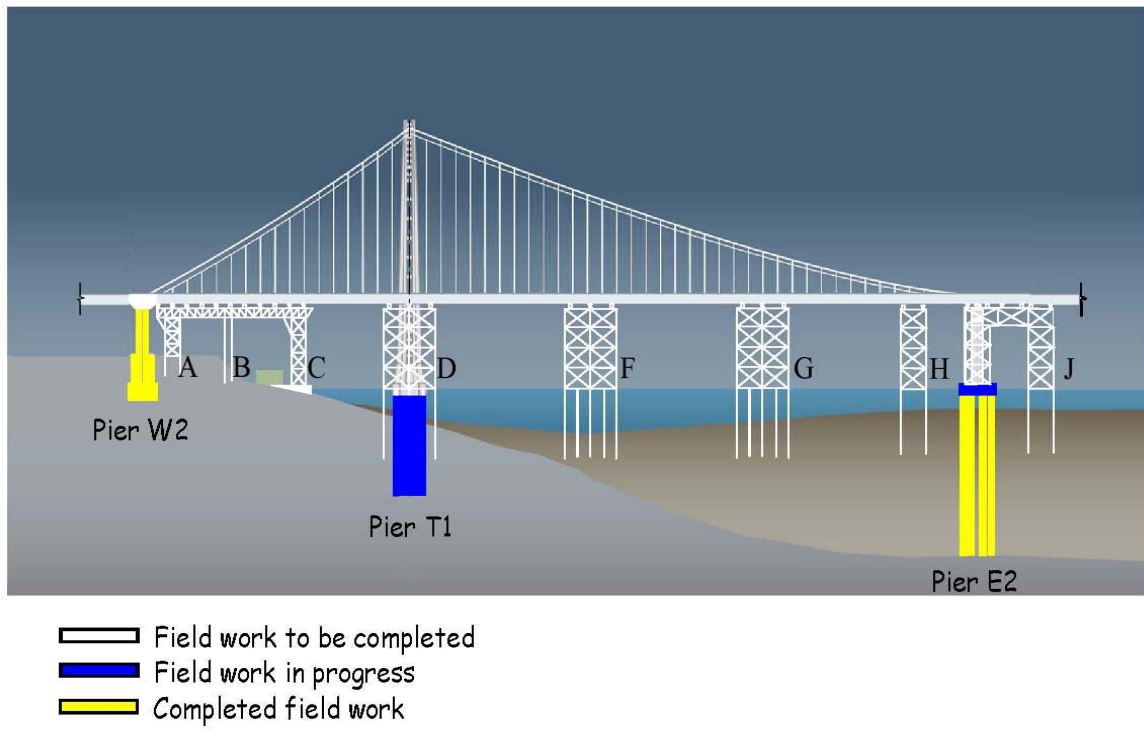
*SAS Superstructure Artist Rendition*



*View of the Western End of the Skyway Contract that will connect with the Future SAS Contract.*



## SAS Superstructure Construction Progress





## Toll Bridge Seismic Retrofit Program

**San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project**► **YERBA BUENA ISLAND (YBI)**• **SOUTH/SOUTH DETOUR CONTRACT**

**Contract Description:** The Yerba Buena Island (YBI) South/South Detour (SSD) Contract constructs a temporary detour from the YBI tunnel to the existing east span of the Bay Bridge. This detour maintains traffic on the existing bridge while the YBI Transition Structure Contract completes the tie-in from the SAS to the existing tunnel.

**YBI South/South Detour Cost Summary (\$Millions)**

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
YBI South/South Detour						
Capital Outlay Support	29.5	-	29.5	18.7	29.5	-
Capital Outlay Construction	131.9	-	131.9	39.5	334.4	202.5
<b>TOTAL</b>	<b>161.4</b>	<b>-</b>	<b>161.4</b>	<b>58.2</b>	<b>363.9</b>	<b>202.5</b>

*Note: Details may not sum to totals due to rounding effects.*

**YBI South/South Detour Schedule Summary**

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)
YBI South / South Detour *	July 2007	36	Jun 2010	Jun 2010	-

\* Contract schedule under assessment. See Contract Issues below.

**Contract Status:** The South/South Detour (SSD) contract was awarded in early 2004 to construct a temporary detour structure providing for, at that time, a new bridge opening in 2006. Due to the re-advertisement of the SAS superstructure contract in 2005, bridge opening was rescheduled to 2013, which necessitated a temporary suspension of the SSD contract and design changes. The required suspension of work and design revisions has resulted in increased cost for the SSD Contract.

In 2006, the TBPOC approved a plan to pace work on the project, to have Caltrans assume design responsibility over the east and west tie-ins, and to make changes to the detour structures to allow it to stand in place alone for a longer duration than originally intended. The SSD contract is now forecasted to be completed in 2010 in time for the revised opening date of the new bridge.

In addition to the revised contract completion date, the TBPOC approved on February 15, 2007 to advance foundation and retrofit work from the Yerba Buena Island Transition Structures (YBITS) contract to the South/South Detour contract. Advancing the work will reduce overall project schedule risk by taking work off the critical path for the East Span project while making more effective use of the extended SSD contract duration, and will enable potential acceleration of the SAS construction pending negotiation with American Bridge.

Advancing the transition structure work, completing the tie-in work under Caltrans design, and pacing of the remaining SSD work will result in a net \$180 million increase in the project costs from the approved budget. The increase will be covered by the existing program contingency and will not increase the AB144 program budget.

Prior to the suspension of the SSD contract, foundations for the temporary detour were nearly completed. Work has restarted on the contract, including fabrication of the temporary viaduct in Korea. The contractor has already made significant progress on the foundation and column at pier W3 of YBITS and has started work on retrofitting of the upper deck approach to the Yerba Buena Island Tunnel. The upper deck approach retrofit will require a three-day closure of the Bay Bridge to roll in a replacement upper roadway. Currently, the closure is scheduled for as early as Labor Day 2007.

#### Contract Issues:

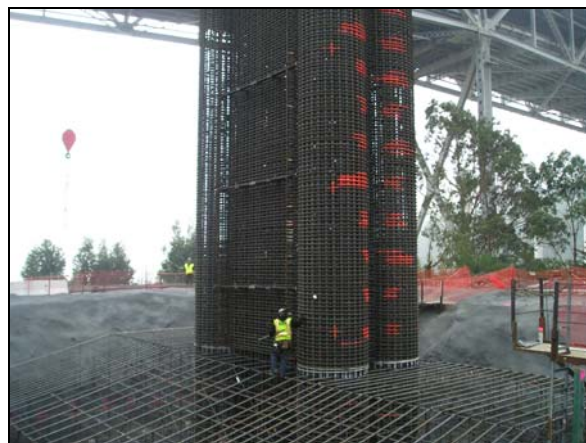
Issue	Mitigating Action
Delay to the SAS superstructure contract due to re-advertising has impacts on the South/South Detour Contract.	See contract status above.

**Recent TBPOC Actions:** In February 2007, the TBPOC approved a revised cost and schedule forecasts and budget for the contract. See contract status above.

#### Contract Photographs



*Advanced YBITS Foundations W3L*



*W3L Column Cage*



*USCG Access Road to Quarters 8*



*Placing the Steel Reinforcement for the Footing at W3L*

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► YERBA BUENA ISLAND (YBI)

##### • YBI TRANSITION STRUCTURE CONTRACTS

**Contract Description:** The YBI Transition Structure contracts will construct the mainline YBI transition structures (YBITS) that will connect the SAS portion of the new bridge to the existing YBI tunnel. YBITS #1 will construct the mainline approach structure from the new bridge to the YBI tunnel. YBITS #2 will demolish the South/South Detour (SSD) temporary structure, complete the new eastbound on-ramp, complete the bike path from the bridge to YBI and reconstruct local affected facilities at YBI. A YBI Landscaping Contract will restore slopes and vegetation in areas affected by YBI construction. Caltrans is still reviewing and finalizing YBITS contract split options.

##### YBI Transition Structure Cost Summary (\$Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
YBI Transition Structure						
Capital Outlay Support	78.7	-	78.7	12.3	78.7	-
Capital Outlay Construction	299.3	-	299.3	-	276.1	(23.2)
<b>TOTAL</b>	<b>378.0</b>	<b>-</b>	<b>378.0</b>	<b>12.3</b>	<b>354.8</b>	<b>(23.2)</b>

*Note: Details may not sum to totals due to rounding effects.*

##### YBI Transition Structure Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)
YBI Transition Structure	November 2013	12	November 2014	November 2014	-

**Contract Status:** In February 2007, the TBPOC approved a plan to accelerate YBITS work to the SSD contract. Advancing work from the YBITS contract to the SSD contract will result in a forecast cost reduction of \$23.2 million. Caltrans is preparing the remaining portion of the YBITS contract for advertisement in 2009. See SSD Contract Status on page 18 for more information.

**Contract Issues:** None.

**Recent TBPOC Actions:** In February 2007, the TBPOC approved a plan to accelerate YBITS work on the SSD contract.

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► OAKLAND TOUCHDOWN

##### • OAKLAND TOUCHDOWN SUBMARINE CABLE RELOCATION CONTRACT

**Contract Description:** The OTD Submarine Cable Contract will replace the existing submarine electrical cable from Oakland to Treasure Island, and will be completed ahead of OTD Contract No. 1 to avoid possible construction conflicts.

##### Oakland Touchdown Submarine Cable Relocation Cost Summary (\$Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
OTD Submarine Cable						
Capital Outlay Support	-	-	-	0.4	3.0	-
Capital Outlay Construction	-	-	-	-	9.6	-
<b>TOTAL</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.4</b>	<b>12.6</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects. The allocation of AB144/SB 66 budgets is proceeding. Budget amount is TBD. Overall OTD budgets and forecasts are shown on page 2.*

##### Oakland Touchdown Submarine Cable Relocation Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)
OTD Submarine Cable	-	-	January 2008	January 2008	-

**Contract Status:** On January 11, 2007, Caltrans approved a contract with Manson Construction for the replacement of an existing submerged electrical cable from Oakland to Treasure Island with two cables located away from the Oakland Touchdown construction area. The contractor is currently preparing contract submittals for Caltrans review and has placed an order for the cabling.

Current contract allotment to install two submarine electrical cables is \$11.5 million. Additional non-program funding to support this allocation beyond the \$9.6 million of available programs funds has been made available by the Treasure Island Development Authority.

##### Contract Issues:

Issue	Mitigating Action
If the contractor cannot procure and install the cables within the specified timeframes, the cable relocation project could potentially delay work on the OTD #1 contract.	The cable has been ordered by the Contractor, and work around specification language has been developed for the OTD #1 contract in case the cables are delayed.

**Recent TBPOC Actions:** None.

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► OAKLAND TOUCHDOWN

##### • OAKLAND TOUCHDOWN #1 CONTRACT

**Contract Description:** The Oakland Touchdown #1 Contract includes construction of all marine foundations, westbound bridge section and roadway approach for the section connecting the new Skyway portion to the roadway west of the Oakland Toll Plaza. This contract also constructs the electrical substation and the eastbound detour roadway. Traffic will not be placed on the detour until later during OTD #2.

#### Oakland Touchdown #1 Cost Summary (\$Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
Oakland Touchdown #1						
Capital Outlay Support	-	-	-	2.8	49.9	-
Capital Outlay Construction	-	-	-	-	226.5	-
<b>TOTAL</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2.8</b>	<b>276.4</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects. The allocation of AB144/SB 66 budgets is proceeding. Budget amount is TBD. Overall OTD budgets and forecasts are shown on page 2.*

#### Oakland Touchdown #1 Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)
Oakland Touchdown #1	-	-	July 2009	October 2009	3

**Contract Status:** Design work is complete. Plans, Specifications, and Engineer's Estimate (PS&E) were submitted to the Office Engineer on September 1, 2006. Bid advertise date is scheduled in February 2007 with bid opening scheduled for June 2007. The contract is being advertised with a A+B specification that requires contractors to take into account contract duration as part of their bid. The A+B specification may accelerate completion of the contract earlier than the current October 2009 forecast completion date.

#### Contract Issues:

Issue	Mitigating Action
Delays and cost increases due to conflicts from delays to the relocation of the submarine cable.	Caltrans will be incorporating work-around specification language in the OTD 1 contract to mitigate delays due to the cable and has extended the forecast completion date of the contract to October 2009. The revised completion date will not impact the overall completion date of the project.

**Recent TBPOC Actions:** In September 2006, the TBPOC approved the Plans, Specifications and Estimates for the OTD #1 contract. In October 2006, the TBPOC approved a capital outlay construction forecast of \$226.5 million.



## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► OAKLAND TOUCHDOWN

##### • OAKLAND TOUCHDOWN #2 CONTRACT

**Contract Description:** The Oakland Touchdown #2 Contract includes construction of the remaining eastbound bridge section and roadway approach for the section connecting the new Skyway portion to the roadway west of the Oakland Toll Plaza. This work would occur once the westbound traffic is shifted onto the new SAS. It also includes the Oakland Touchdown Electrical Systems Contract, which will incorporate most of the electrical elements from OTD, as well as from other segments of the East Span.

#### Oakland Touchdown #2 Cost Summary (\$Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	-	-	-	0.2	17.2	-
Capital Outlay Construction						
OTD #2	-	-	-	-	62.0	-
OTD Electrical Systems	-	-	-	-	4.4	-
<b>TOTAL</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.2</b>	<b>83.6</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects. The allocation of AB144/SB 66 budgets is proceeding. Budget amount is TBD. Overall OTD budgets and forecasts are shown on page 2.*

#### Oakland Touchdown #1 Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)
Oakland Touchdown #2	-	-	November 2014	November 2014	-

**Contract Status:** Design work for the structures portion of OTD Contract No. 2 is substantially complete. The contract will be advertised in 2010 in time for opening the SAS in the eastbound direction. Determination of contract scope for the Oakland Touchdown Electrical Systems is underway. Caltrans is also considering the option of incorporating this work into the Oakland Touchdown #2 contract.

**Contract Issues:** None.

**Recent TBPOC Actions:** None.

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► OTHER MAJOR CONTRACTS

**Contract Description:** Other Major Contracts include the Stormwater Treatment Measures contract, which will implement best practices for stormwater runoff treatment at the SFOBB toll plaza; and the Existing Bridge Demolition contract, which will include the complete removal of the existing 1936 east span following the opening of the new bridge.

#### Other Major Contracts Cost Summary (\$Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
A	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	238.8	-	238.8	42.1	257.5	18.7
Capital Outlay Construction						
Existing Bridge Demolition	239.2	-	239.2	-	222.0	(17.2)
Stormwater Treatment Measures	15.0	-	15.0	7.3	15.0	-
Total Capital Outlay Construction	254.2	-	254.2	7.3	237.0	(17.2)
<b>TOTAL</b>	<b>493.0</b>	<b>-</b>	<b>493.0</b>	<b>49.4</b>	<b>494.5</b>	<b>1.5</b>

*Note: Details may not sum to totals due to rounding effects.*

#### Other Major Contracts Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)	% Design Comp.
Existing Bridge Demolition	September 2014	12	September 2015	September 2015	-	10
Stormwater Treatment Measures	March 2008	-	March 2008	June 2007	(9)	N/A

#### Contract Status:

**Stormwater Treatment Measures:** The contract is 51% complete as of January 19, 2007. Some delays in the work have been experienced due to nesting birds, buried man-made objects, unidentified utilities, and discovery of unsuitable materials. The current schedule forecast shows an early completion date due to an accelerated award of the contract by Caltrans and a reduced construction contract duration that was bid by the contractor as part of an A+B bid.

**Bridge Demolition:** Design work has been temporarily suspended to assign engineering resources to higher priority tasks, and will resume at a later time. The contract schedule completion date has been extended by 12 months due to a 12-month SAS contract extension. The \$17.2 million decrease in construction costs for the Existing Bridge Demolition contract is due to a re-evaluation of cost escalation rates for the contract.

**Contract Issues:** None.

**Recent TBPOC Actions:** None.

**Contract Photographs***Pump Station 4b Roof Forms**Pump Station 1B**Basin 5 Subgrade**A7 Shoulder Excavation*

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► OTHER COMPLETED CONTRACTS AND RELATED WORK

**Summary Description:** Substantial work has already been performed on the SFOBB East Span Replacement project to facilitate construction of the mainline construction contracts.

#### Other Contracts and Related Work Cost Summary (\$Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	b	c	d = b + c	E	f	g = f - d
Capital Outlay Support	227.0	-	227.0	209.0	226.0	(1.0)
Right-of-Way and Environmental Mitigation	72.4	-	72.4	38.8	72.4	-
Capital Outlay Construction						-
SAS W2 Foundations	26.4	-	26.4	25.8	26.4	-
YBI/SAS Archaeology	1.1	-	1.1	1.1	1.1	-
YBI - USCG Road Relocation	3.0	-	3.0	2.8	3.0	-
YBI - Substation and Viaduct	11.6	-	11.6	11.3	11.6	-
Oakland Geofill	8.2	-	8.2	8.2	8.2	-
Pile Installation Demonstration Project	9.2	-	9.2	9.2	9.2	-
Existing East Span Retrofit	30.8	-	30.8	30.8	30.8	-
Total Capital Outlay Construction Completed	90.3	-	90.3	89.2	90.3	-
<b>TOTAL</b>	<b>389.7</b>	<b>-</b>	<b>389.7</b>	<b>337.0</b>	<b>388.7</b>	<b>(1.0)</b>

*Note: Details may not sum to totals due to rounding effects.*

#### Other Contracts and Related Work Schedule Summary

Project	Actual Project Completion Date
Existing East Span Retrofit	March 1998
Interim Retrofit	July 2000
Pile Installation Demolition Project	December 2000
YBI / SAS Archaeology	January 2003
Oakland Geofill	April 2003
YBI – USCG Road Relocation	June 2004
SAS W2 Foundations	October 2004
YBI Substation and Viaduct	May 2005

**Summary Status:** Construction has been completed on the above-listed contracts. Caltrans continues to work with various environmental agencies to conduct compliance inspections and monitor and mitigate any environmental impacts from the project.

**Contract Issues:** None.

**Recent TBPOC Actions:** None.

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) West Approach Replacement Project

**Project Description:** The SFOBB West Approach Replacement Project will replace the entire west approach structure from 5<sup>th</sup> Street to the west anchorage of the existing west spans of the SFOBB while maintaining existing traffic lanes for the weekday commute.

#### SFOBB West Approach Replacement Cost Summary (\$Millions)

Project	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
West Approach						
Capital Outlay Support	120.0	-	120.0	88.2	120.0	-
Capital Outlay Construction	309.0	-	309.0	226.6	309.0	-
<b>TOTAL</b>	<b>429.0</b>	<b>-</b>	<b>429.0</b>	<b>314.8</b>	<b>429.0</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects.

#### SFOBB West Approach Replacement Schedule Summary

Project	AB 144/SB 66 Project Completion Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)
West Approach	August 2009	-	August 2009	August 2009	-

**Project Status:** Construction is 76% complete as of January 20, 2007. Seismic retrofit construction is continuing throughout the project. Major ongoing work during January included the continuation of work on the 5th Street and Harrison Street ramps, the 4th Street retrofit work, and the interim eastbound detour (the “ST6D” alignment). Frame 8U achieved a significant seismic safety milestone by having both the north and south sections transversely stressed together into one structural unit.

As part of the continuing effort to effectively manage traffic in the project area, two CCO’s have been developed and negotiated which, together, will mitigate traffic risks associated with the as-planned eastbound detour alignment. The first of these documents, CCO #149, was presented and approved by the TBPOC in February 2007. The second, CCO #161, will create a temporary alignment of the Sterling Street on-ramp.

It is anticipated that the EB (lower deck traffic) will be switched to a temporary EB alignment (ST6D) in spring of 2007. Immediately following this cross-over, significant demolition and extensive outreach will be done for the local residents and business communities.

#### Project Issues:

Issue	Mitigating Action
Pile investigation and testing for the identification of pile anomalies must be completed in a timely manner so as to avoid construction impact.	Work on piles has progressed. Caltrans Construction coordinates closely with Structure Design and METS daily on pile investigation and testing issues, and proactively monitors the efforts. Tracking of the testing effort is done for each individual pile. Team participation in Risk Management meetings has proven to be valuable in addressing this issue.
Original plans for the ST6D alignment would result in significant operational issues for the First and Essex Street on-ramps to the bridge in San Francisco. (See page 31)	Caltrans Construction has prepared change order #149 to modify the ST6D alignment to mitigate traffic risks associated with the as planned eastbound detour alignment.

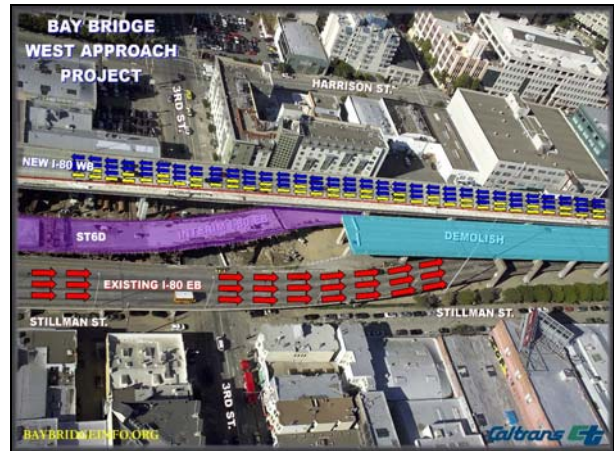
**Recent TBPOC Actions:** None.



## Project Photographs



West Approach Progress Photo 1



West Approach Progress Photo 2



West Approach Progress Photo 3



West Approach Progress Photo 4

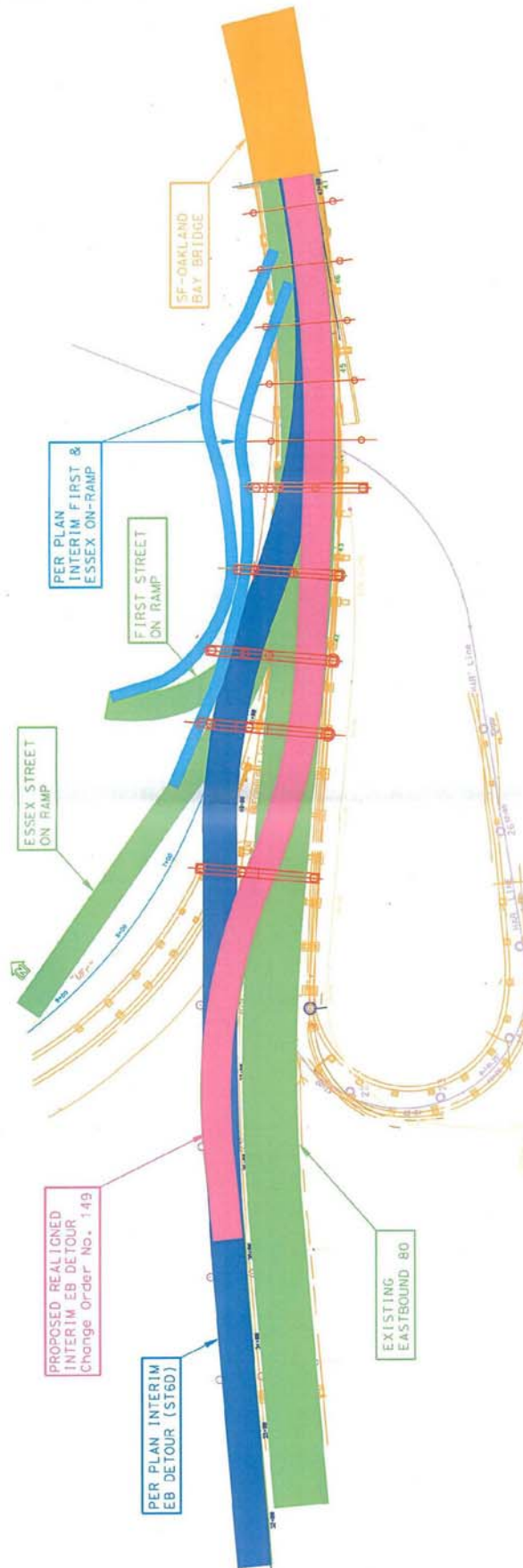


West Approach Progress Photo 5



West Approach Progress Photo 6

**WEST APPROACH (EA 04-0435V4)**  
**REALIGNMENT OF ST6D STAGE 5 DETOUR**



## Toll Bridge Seismic Retrofit Program

### Richmond-San Rafael Bridge (RSRB) Seismic Retrofit Project

**Project Description:** The Richmond-San Rafael (RSR) Bridge Seismic Retrofit Project strengthened the existing bridge to withstand the effects of a large seismic event. As part of the retrofit work, Caltrans performed work to strengthen the bridge foundations, replace the existing west trestle and the main channel fenders and complete the joint rehabilitation of the bridge deck. (The RM1 work is reported in the RM1 section of the report.)

#### RSRB Seismic Retrofit Cost Summary (\$Millions)

Project	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
RSRB Seismic Retrofit						
Capital Outlay Support	134.0	(7.0)	127.0	125.8	127.0	-
Capital Outlay Construction & Right-of-Way	780.0	(82.0)	698.0	665.6	698.0	-
<b>TOTAL</b>	<b>914.0</b>	<b>(89.0)</b>	<b>825.0</b>	<b>791.4</b>	<b>825.0</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects.*

\* The seismic retrofit contract included work to rehabilitate the bridge deck joints. Although the deck joint work was funded from RM1 toll funds, the work is also eligible for Toll Bridge Seismic Retrofit Program funding. In July 2005, BATA rescinded \$16.9 million in RM1 funds for the deck joint work to make additional RM1 funds available for the New Benicia-Martinez Bridge Project. An equivalent amount of seismic funds will be used on the deck joint work, which is included in the budget above.

#### RSRB Seismic Retrofit Schedule Summary

Project	AB 144/SB 66 Project Completion Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)
RSRB Seismic Retrofit	August 2005	-	August 2005	October 2005	2
RSRB Public Access Project	NA	-	May 2007	May 2007	-

**Project Status:** The retrofit construction contract was completed and accepted on October 28, 2005. Project savings in the amount of \$89 million was transferred to the program contingency in October 2006.

Caltrans has submitted the project plans and specifications for a public access lot on the Marin side of the bridge to comply with a Bay Conservation and Development Commission (BCDC) permit condition. (See the exhibit on page 31.) It was advertised on October 2, 2006 and bids were opened on December 1, 2006. Seven bids were submitted with Ghilloti Bros. Inc. submitting the apparent lowest A+B bid of \$1,005,863.40, as compared with the Engineer's Estimate of \$1,072,157.25.

**Contract Issues:** None.

**Recent TBPOC Actions:** None.





## Toll Bridge Seismic Retrofit Program

### Other Completed Seismic Retrofit Projects

**Summary Description:** Caltrans has already completed the seismic retrofits of the West Spans of the SFOBB, the existing 1958 Carquinez Bridge, the existing Benicia-Martinez Bridge, the San Mateo-Hayward Bridge, and two former toll bridges in Southern California.

#### Other Completed Seismic Retrofit Projects Cost Summary (\$Millions)

Project	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	b	c	d = b + c	e	F	g = f - d
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit Project	307.9	-	307.9	301.1	307.9	-
Carquinez Bridge Retrofit Project	114.2	-	114.2	114.2	114.2	-
Benicia-Martinez Bridge Retrofit Project	177.8	-	177.8	177.8	177.8	-
San Mateo-Hayward Bridge Retrofit Project	163.5	-	163.5	163.4	163.5	-
Vincent Thomas Bridge Retrofit Project	58.5	-	58.5	58.4	58.5	-
San Diego-Coronado Bridge Retrofit Project	103.5	-	103.5	102.6	103.5	-
<b>TOTAL</b>	<b>925.4</b>	<b>-</b>	<b>925.4</b>	<b>917.5</b>	<b>925.4</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects. Capital Outlay Support and Capital Outlay have been combined.*

#### Other Completed Seismic Retrofit Projects Schedule Summary

Project	Actual Project Completion Date
Vincent Thomas Bridge Retrofit	May 2000
San Mateo-Hayward Bridge Retrofit	June 2000
Carquinez Bridge Retrofit	January 2002
San Diego-Coronado Bridge Retrofit	June 2002
Benicia-Martinez Bridge Retrofit	August 2002
SFOBB West Span Seismic Retrofit	June 2004

**Summary Status:** Construction has been completed on the above-listed projects. The Estimate at Completion amounts shown above include allowances for minor project closeout costs.

**Contract Issues:** None.

**Recent TBPOC Actions:** None.



## Toll Bridge Seismic Retrofit Program

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### *Other Toll Bridges*

#### **Dumbarton and Antioch Bridges**

The original design of the Dumbarton and Antioch Bridges were based on design criteria developed after the 1971 San Fernando Earthquake. In the early 1990's, Caltrans determined that these two structures had the seismic resistant features required by the post-1971 codes and were not likely to be vulnerable during a major seismic event. Since that time, Caltrans has pursued an aggressive seismic research program. Based on the results of this program, Caltrans significantly revised its seismic design practice in the late 1990's. Consistent with recommendations by the Caltrans Seismic Advisory Board, Caltrans regularly reassesses the seismic risk and performance of its bridges. Due to the tremendous changes in seismic design practice that have occurred since the design of the Dumbarton and Antioch bridges, a comprehensive assessment of the potential need and scope for seismic retrofit based on current knowledge is advised.

#### **Vulnerability Studies**

In late 2004, Caltrans initiated vulnerability studies on the Dumbarton and Antioch bridges. The purpose of these studies was to determine if the bridges would meet current seismic performance standards. The studies were essentially completed in May 2005. They were not complete global analyses, but rather investigations of selected bents modeled as independent structures. The analyses were limited in scope and based on as-built plans and currently available geotechnical information. The superstructure response was not analyzed.

The Dumbarton and Antioch Bridges have many seismic resistant features, and the results of the vulnerability studies indicate that the bridges should perform well in a moderate seismic event. However, during a major seismic event, some potential vulnerabilities (summarized below) become apparent.

Foundation response generally governs performance. The piles may plunge axially and potentially cause permanent footing rotations.

Potentially large foundation displacements and rotations may result in deformations that can't be easily repaired.

The capacity of the ductile columns is greater than those of the bent cap, pile cap, pile and superstructure. As a result, the latter elements may be damaged in a major event, especially if the foundation is retrofitted.

Given the limitations of the studies, there was insufficient evidence to conclusively determine the performance of the bridges during a maximum credible earthquake (MCE). While the Dumbarton and Antioch bridges may meet performance standards, a more comprehensive technical study is necessary to understand the performance of these structures during an MCE event. A study of this level is necessary to accurately determine the structures' responses and to develop any necessary retrofit strategies. A comprehensive geotechnical study using the latest analysis techniques is likely necessary in order to perform this level of analysis.

**Sensitivity Analysis**

As a follow-up to the Vulnerability Study, a sensitivity analysis was completed on a single representative bent used in the Vulnerability Study (Bent 23 of the Dumbarton Bridge). The goal of the analysis was to determine the structural response associated with uncertainties in the geotechnical data. An envelope of soil conditions (best-case and worst-case scenarios) was used in the analysis.

The results from the sensitivity analysis indicate that the seismic response of the bridge is largely dependant on the soil conditions and that a comprehensive geotechnical investigation is essential for understanding the bridge's performance during a major seismic event. A work plan was developed to assess the extent of geotechnical work needed for a refined seismic analysis and to assess the required performance levels for each structure. Caltrans has completed the value analysis to scope the geotechnical investigation that will be required to complete the strategy. The final report was issued on July 24, 2006.

**Cost and Schedule**

A preliminary cost estimate, schedule and initial risk analysis have been developed to complete a comprehensive seismic analysis for each bridge. The preliminary estimate and schedule were developed as a baseline that assumed a complete geotechnical and geophysical investigation would be required on each bridge.

**Current Progress**

In June 2006, BATA approved \$17.8 million in funding to proceed with the comprehensive seismic analysis of the bridges. By September 2006, BATA entered into a contract with Earth Mechanics to conduct geotechnical and geophysical investigations, which have been on-going since December 6, 2006.

At the Dumbarton Bridge, all land and marine drilling have been completed.

At the Antioch Bridge, 28 of the 30 on-land drilling have been completed and also the Marine drilling operations have been completed.

A bathymetric survey (the measurement of the depth from the water surface to the mudline) has been completed at both bridges. This survey will provide the topography of the bay mud in the vicinity of each bridge.

Caltrans is currently reviewing the new geotechnical data, as well as existing geotechnical data. Caltrans began the structural analysis to complete the seismic retrofit strategies for each bridge. Caltrans have also been working with the Seismic Advisory Peer review panel on the status of the project.



## PROJECT / CONTRACT REPORTS

### Regional Measure 1 Program

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#### New Benicia-Martinez Bridge Project Summary

- New Benicia-Martinez Bridge Contract
- Other Contracts and Related Project Activities

#### New Carquinez Bridge Project

#### Richmond-San Rafael Bridge Deck Overlay Project

#### Interstate 880 / State Route 92 Interchange Reconstruction

#### Other Completed Regional Measure 1 Projects

- San Mateo-Hayward Bridge Widening Project
- Richmond Parkway Project
- Bayfront Expressway Widening Project
- Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Project

## Regional Measure 1 Program

### New Benicia-Martinez Bridge Project Summary

**Project Description:** The new Benicia-Martinez Bridge project constructs a new parallel bridge just east of the existing bridge. The project will include reconstructed interchanges to the north and south of the bridges and a new toll plaza and administration building in Martinez.

#### New Benicia-Martinez Bridge Project Cost Summary (\$Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	B	c	d = b + c	e	f	g = f - d
Capital Outlay Support	157.1	24.8	181.8	164.2	181.8	-
Right-of-Way and Others	20.4	(0.1)	20.3	12.3	20.3	-
Capital Outlay						-
New Bridge	672.0	100.9	772.9	724.0	772.9	-
I-680/I-780 Interchange Replacement	76.3	22.5	98.8	83.0	98.8	-
I-680/Marina Vista Interchange Reconstruction	51.5	8.1	59.6	54.7	59.6	-
New Toll Plaza	24.3	2.0	26.3	22.8	26.3	-
Existing Bridge & Interchange Modifications	17.2	10.9	28.1	-	28.1	-
Other	20.3	(1.3)	19.0	15.2	19.0	-
Project Reserve	20.8	35.3	56.2	-	56.2	-
<b>TOTAL</b>	<b>1,059.9</b>	<b>203.1</b>	<b>1,263.0</b>	<b>1,076.2</b>	<b>1,263.0</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects.

\* The budget and estimate at completion includes approximately \$33 million in non-toll bridge funds (Proposition 192 and SHOPP).

#### New Benicia-Martinez Bridge Project Schedule Summary

Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)
I-680/Marina Vista Interchange Reconstruction	March 2006	1	April 2006	April 2006	-
New Toll Plaza	June 2006	-	June 2006	January 2007	7
New Benicia-Martinez Bridge	December 2007	-	December 2007	December 2007	-
I-680/I-780 Interchange Replacement	December 2007	-	December 2007	February 2008	2
Open to Traffic	December 2007	-	December 2007	December 2007	-
Existing Bridge & Interchange Modifications	December 2009	-	December 2009	December 2009	-

\*See page 45 for an explanation of change in schedule forecast.

**Project Status:** All major construction projects necessary to open the bridge are currently in construction. Numerous foundation and superstructure issues have significantly delayed the new bridge contract. See the following contract detail pages for more information. Note that the remaining expenditures required on the “Right-of-Way and Others” category represent environmental permitting and mitigation.

**Project Issues:** None.

**Recent TBPOC Actions:** See the following contract detail pages for more information.

#### Project Photographs



*Aerial Photo of the Benicia-Martinez Bridges*



*New Benicia-Martinez Progress*



*Operations Building & Courtyard Looking West*



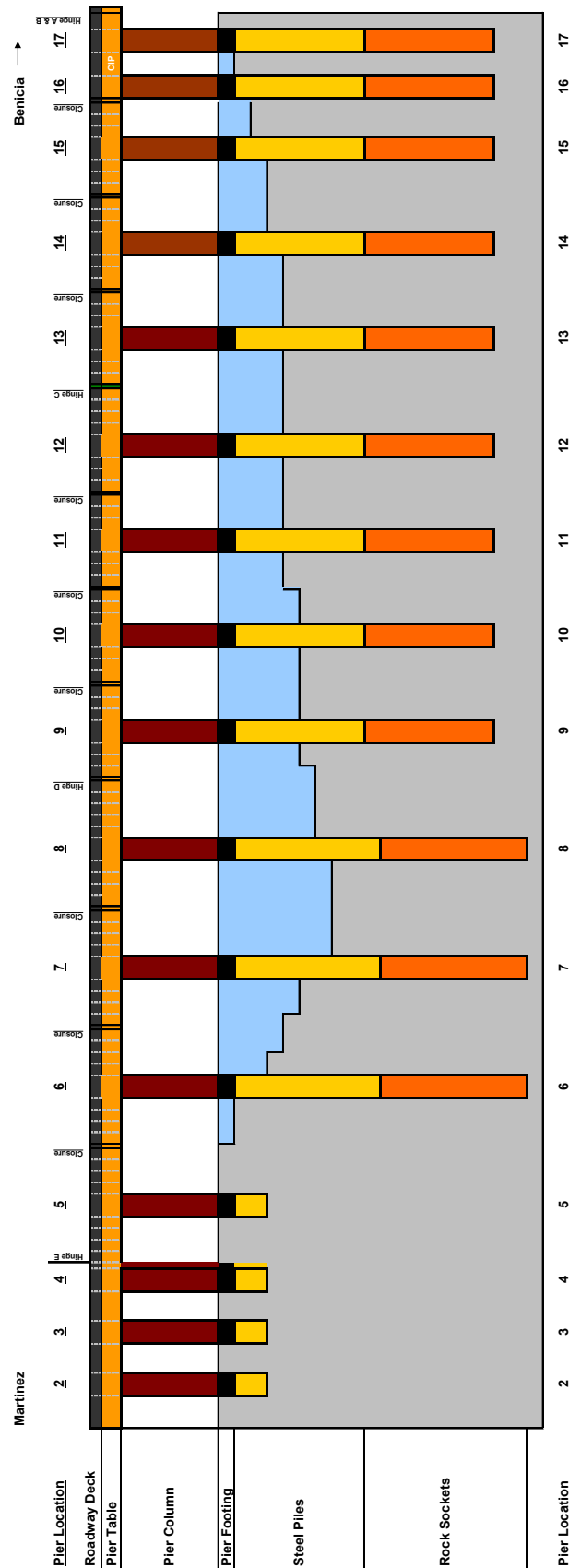
*Toll Plaza Administration Building*



**Project Photographs Cont'd.***Aerial Photo of the Benicia-Martinez Bridges**Barrier Rail Construction at New Bridge Photo**Barrier Rail Construction at New Bridge Photo**Benicia-Martinez Progress Photo**Benicia-Martinez Progress Photo**Benicia-Martinez Progress Photo*

### New Benicia-Martinez Bridge Progress Diagram

January 2007



#### Notes:

1. Abutment 1 and Piers 2 through 5 are on land and have 66 piles. All piles, footings, columns and pier tables are complete. The superstructure is complete from Abutment 1 to Pier 4.
2. Piers 6 through 17 are located in the water and have 8 to 9 piles and rock sockets each - a total of 99. All 99 piles have been driven to their required depth and all 99 rock sockets have been installed.
3. Piers 6 through 17 have two-part footings. Piers 6, 16 and 17 have a cast-on-location tower section and a cast-in-place (CIP) upper section, which are lowered onto the piles. All three footings are complete. Piers 7 through 15 have a precast lower section that is set on the piles and a cast-in-place (CIP) upper section. All nine precast footings have been set and all CIP footings are complete.
4. All Stage 2 footings have been poured and stressed.
5. All pier tables are complete as of the end of May 2006.
6. Piers 4 through 15 have 344 cast-in-place cantilevered superstructure segments. All of the three-hundred and forty-four (344) segments (100%) have been cast to-date. Hinges A, B, E and D are completed and Hinge C is still in progress. All nine span closures have been poured. Span 13 closure, which was the last closure to be poured was poured on 12/19/06.
7. The cast-in-place on falsework superstructure south of Pier 4 is substantially complete, except for the bridge deck repair work, which are still to be done. The structure north of Pier 15 is substantially complete, including the lower and the upper hinge seats at Hinges A and B.

## Regional Measure 1 Program

### New Benicia-Martinez Bridge Project

#### ► NEW BENICIA-MARTINEZ BRIDGE CONTRACT

**Contract Description:** The new bridge contract constructs a new cast-in-place segmentally constructed reinforced concrete bridge just east of the existing bridge. The new bridge will carry five lanes of eastbound I-680 traffic towards Benicia.

#### New Benicia-Martinez Bridge Cost Summary (\$Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
New Benicia-Martinez Bridge						
Capital Outlay Support	84.9	7.7	92.6	83.2	92.6	-
Capital Outlay Construction	672.0	100.9	772.9	724.0	772.9	-
<b>TOTAL</b>	<b>756.9</b>	<b>108.6</b>	<b>865.5</b>	<b>807.2</b>	<b>865.5</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects.*

#### New Benicia-Martinez Bridge Schedule Summary

Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)
New Benicia-Martinez Bridge	December 2007	-	December 2007	December 2007	-

**Contract Status:** The contract is 93 % complete based on the current revised schedule. All substructure and superstructure works have been completed. The final closure on the job was poured on December 20, 2006. Significant electrical work activities, including electrical installation of power and communication conduits/junction boxes, cable trays and lighting fixtures in girder box frames, health monitoring accelerometer boxes/ conduits between hinge D & E, acoustical monitoring control and interfacing cabinets, and seismic monitoring boxes/conduits at spans 5 thru 16, are on-going. Miscellaneous work, such as, punchlist work, exterior finish, grinding and profilograph, prep work for grouting spans and continuity tendons, and installation of ship ladders for the fixed platforms, installation of bumpers and movable maintenance travelers, have either been completed during this period or continuing. The critical path rests on the installation of the maintenance travelers and the electrical raceways within the various spans, and the installation of the Seismic Monitoring System.

Consistent with BATA's Fastrak strategic plan, plans are progressing for the implementation of open road tolling at the toll plaza, which will involve the demolition of the toll booths. A CCO for the amount of \$4.83M, which excludes an office relocation cost of \$223,488, has been signed and issued to the Contractor on January 3, 2007. Addendum # 3, which is mostly electrical changes were issued to the Contractor, and a cost proposal has been submitted and currently being reviewed. This addendum # 3 and other design changes will be treated as a Supplement to the CCO. Work on the removal of Toll Booths and all related work at the Toll Plaza, which will provide access to the Open Road Tolling (ORT) System contractor by March 1, 2007 are in progress.

**Contract Issues:**

Issue	Mitigating Action
During stressing of steel span tendons, tie the bridge piers at spans 6, 9, and 11, Caltrans discovered that some concrete had delaminated at the bottom of several of the segments.	To repair the delamination, Caltrans has directed the contractor to repair the affected delaminated concrete at the closure soffits and issued CCO # 166 for these tasks. Platform fabrication is currently in progress at Span 6. The Contractor was also directed to fabricate a 2 <sup>nd</sup> platform to expedite the work on the other segments. These repairs should not impact the opening date of the bridge.

**Recent TBPOC Actions:** None.

**Contract Photographs**

*New Bridge Progress Photo*



*New Bridge Progress Photo*



*New Bridge Progress Photo*



*New Bridge Progress Photo*



## Regional Measure 1 Program

**New Benicia-Martinez Bridge Project Summary**► **OTHER CONTRACTS AND RELATED PROJECT ACTIVITIES**

**Contract Description:** Contracts related to the new Benicia-Martinez Bridge project involve the construction of a new toll plaza south of the new bridge in Contra Costa County with 17 toll booths, including two high-occupancy vehicle (HOV) bypass lanes, and the reconstruction of the I-680/Marina Vista Road and I-680/I-780 interchanges.

**Other Contracts and Related Activities Cost Summary (\$Millions)**

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	72.2	17.0	89.2	81.0	89.2	-
Right-of-Way and Environmental Mitigation	20.4	(0.1)	20.3	12.3	20.3	-
Capital Outlay Construction						-
I-680/I-780 Interchange Replacement	76.3	22.5	98.8	83.0	98.8	-
I-680/Marina Vista Interchange Reconstruction	51.5	8.1	59.6	54.7	59.6	-
New Toll Plaza	24.3	2.0	26.3	22.8	26.3	-
Existing Bridge & Interchange Modifications	17.2	10.9	28.1	-	28.1	-
Others	20.3	(1.3)	19.0	15.2	19.0	-
Total Capital Outlay Construction	189.6	42.2	231.8	175.7	231.8	-
<b>TOTAL</b>	<b>282.2</b>	<b>59.1</b>	<b>341.3</b>	<b>269.0</b>	<b>341.3</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects.*

**Other Contracts and Related Activities Schedule Summary**

Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)
I-680/Marina Vista Interchange Reconstruction	March 2006	1	April 2006	April 2006	-
New Toll Plaza	June 2006	-	June 2006	January 2007	7
I-680/I-780 Interchange Replacement	December 2007	-	December 2007	February 2008	2
Existing Bridge & Interchange Modifications	December 2009	-	December 2009	December 2009	-



**Contract Status:**

**Toll Plaza and Administration Building:** The contract is 98% complete based on contractor payment. The Contractor is continuing work throughout the toll plaza area. Punchlist for architectural, electrical and mechanical work is on-going for the Operations Building, Toll Plaza and Courtyard. The contractor completed the installation of column architectural paneling at the Operations Building and Courtyard. A number of notices of potential claims that have been filed by the Contractor remain to be resolved, but this will have no impact on the bridge Open-to-Traffic date. Resident Engineer's estimated date for completion is now forecast for January 30, 2007, to complete the correction of all the punchlist items.

**I-680/I-780 Interchange:** The contract remains approximately 96% complete based on the current revised schedule. To-date, all of the bridge structures are substantially complete. Installation of the hinge expansion joint assembly has been completed and the trestle removal began at the Benicia-Martinez Approach Structure. Final electrical work for the new Benicia-Martinez Bridge and the interchange will not be completed until after the new bridge is complete.

**I-680/Marina Vista Interchange:** The contract is 100% complete as of May 12, 2006, and has been accepted by Caltrans. Caltrans and the contractor are currently resolving the final payment for work on the contract. A final estimate and payment is being negotiated to settle all noted exceptions between Caltrans and the contractor. Three (3) contract change orders (CCO's), amounting to \$1.2M are currently in process. These CCO's would resolved most of the exceptions to the proposed final estimate (PFE), excluding costs relating to the resolution of exceptions regarding its subcontractors, which are currently under negotiation. This subcontractors claim is in the range of \$50k - \$75K.

**Wetland Mitigation:** The contract is 100% complete. The Contract Completion Acceptance (CCA) was submitted to Caltrans Headquarters for their approval on March 3, 2006. The Proposed Final Estimate (PFE) has been reviewed and accepted by the Contractor.

**Recent TBPOC Actions:** In November 2006, the TBPOC approved the amount of \$4.83 million plus \$500K of additional contingency for the Benicia-Martinez Bridge Project CCO to cover ORT work and other work required to open the bridge to traffic.

## Regional Measure 1 Program

### New Carquinez Bridge Project

**Project Description:** The new Carquinez Bridge project involves constructing a new suspension bridge west of the existing bridges with four westbound lanes and a bicycle/pedestrian lane and demolishing the existing 1927 bridge.

#### New Carquinez Bridge Cost Summary (\$Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	124.4	(1.1)	123.3	118.5	123.2	(0.1)
Capital Outlay Construction						-
Replacement Bridge	253.3	4.0	257.3	255.9	257.3	-
South Interchange Reconstruction	73.9	-	73.9	71.9	73.9	-
Existing 1927 Bridge Demolition	35.2	-	35.2	23.5	35.2	-
Other	29.3		28.6	25.2	28.4	(0.2)
Project Reserve	12.1	(2.2)	9.9	-	10.2	0.3
<b>TOTAL</b>	<b>528.2</b>	<b>-</b>	<b>528.2</b>	<b>495.0</b>	<b>528.2</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects.*

#### New Carquinez Bridge Schedule Summary

Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)
New Carquinez Bridge	December 2003*	-	December 2003*	December 2003*	-
1927 Carquinez Bridge Demolition	September 2007	-	December 2007**	March 2008	3
Landscaping	August 2011	-	August 2011	August 2011	-

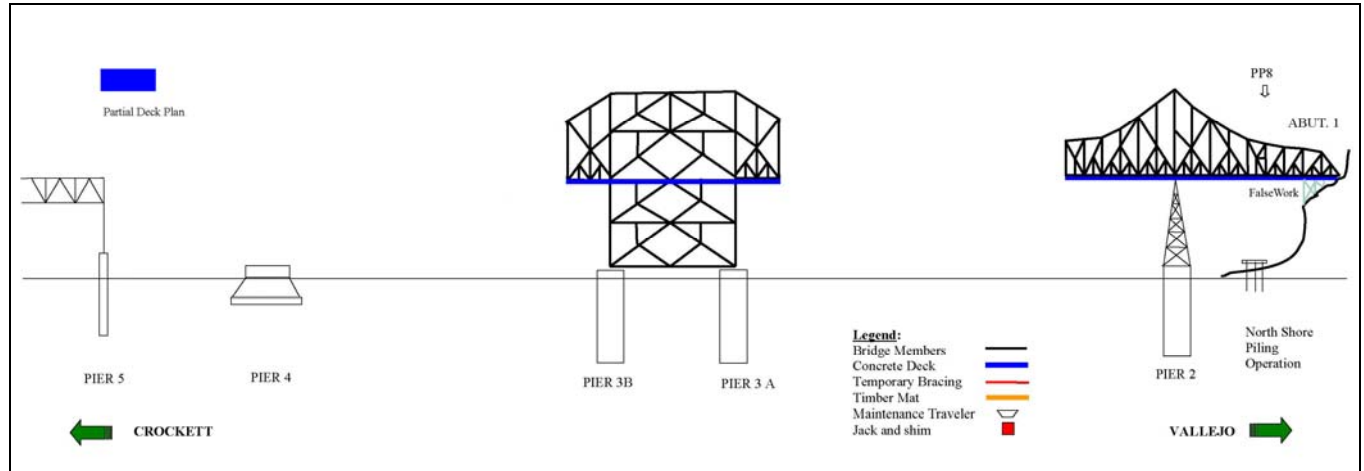
\* The date shown is for the opening of the bridge to traffic.

\*\* Based on Current CPM update as of December 2006.

**Project Status:** The new replacement bridge and all its approaches have been completed and opened to traffic in November 2003. The demolition contract to remove the 1927 bridge, which was awarded in April 2005, is approximately 64% complete based on schedule. However, based on payment, this contract is 78% complete in that the greatest pay items involved the 1958 bridge approach deck replacement, which has been completed in November 2005. To-date, demolition of Units 1, 2, 3 and 7 of the 1927 bridge have been completed. Demolition work continued at Units 4 and 6, with 4 panel points remaining for both Units. Stairs were installed at Unit 9 to access temporary supports at panel points 6. Pile caps at panel point 8 has been completed and preparing to install posts. The demolition of the 1927 bridge approach structure continued with the removal of the steel girders, which was completed within this report period. The removal of the concrete deck portion of the approach structure was completed and reported in last report. Removal of columns has just been started on January 23, 2007.

**Project Issues:**

Issue	Mitigating Action
<ul style="list-style-type: none"> <li>- Utility conflict with the alignment of bike path.</li> <li>- Pier 4 removal.</li> <li>- Installation of water line on the 1958 Bridge.</li> <li>- Conflicting work with UPRR which delay removal of span 13 and Pier 5.</li> </ul>	Delays can not be ascertained at this point, but the RE estimated completion date would be in March 2008.

**Project Photographs**

1927 Carquinez Bridge Demolition Progress Status as of January 31, 2007



Carquinez Bridge Progress Photo



Carquinez Bridge Progress Photo



*Carquinez Bridge Progress Photo*



*Carquinez Bridge Progress Photo*



*Carquinez Bridge Progress Photo*



*Carquinez Bridge Progress Photo*



*Carquinez Bridge Progress Photo*



*Carquinez Bridge Progress Photo*



## Regional Measure 1 Program

### Interstate 880/State Route 92 Interchange Reconstruction Project

**Project Description:** Modify the existing cloverleaf interchange to increase capacity and improve safety and traffic operations.

#### Interstate 880/State Route 92 Interchange Cost Summary (\$Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	B	c	d = b + c	e	f	g = f - d
I-880/SR-92 Interchange Improvement						
Capital Outlay Support	28.8	-	28.8	30.7	51.7	22.9
Capital Outlay Construction	94.8	-	94.8	-	122.5	27.7
Capital Outlay Right-of-Way	9.9	-	9.9	8.1	12.4	2.5
Project Reserve	0.3	-	0.3	-	9.7	9.4
<b>TOTAL</b>	<b>133.8</b>	<b>-</b>	<b>133.8</b>	<b>38.8</b>	<b>196.3</b>	<b>62.5</b>

*Note: Details may not sum to totals due to rounding effects. \$9.6 million in ACTA funds included under Capital Outlay Construction. \$3.7 million included in Capital Outlay Construction for separate landscape contract.*

#### Interstate 880/State Route 92 Interchange Schedule Summary

Project	BATA Project Completion Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (01/2007)	Contract Complete Schedule Forecast (01/2007)	Schedule Variance (Months)
I-880/SR-92 Interchange Reconstruction	December 2010	-	December 2010	June 2011	7

**Project Status:** Caltrans risk advertised the contract on January 8, 2007. Right-of-way acquisition is still in progress. Outstanding parcels include the Union Pacific Railroad parcel, a gas station parcel at Route 92 and Santa Clara St., and the parcels affected by the utility underground along Lindenwood Way. An executed C&M agreement with the railroad is still pending. Right of way certification and agreement target date is April 2, 2007. Bid opening scheduled for May 5, 2007, at which time BATA will take budget update actions as needed. Begin construction target date is June 2007. Construction duration is expected to be four (4) years.

#### Project Issues:

Issue	Mitigating Action
The forecast schedule included an aggressive schedule for right-of-way acquisition that provided for 18 months to clear numerous parcels in the project area. Additional time will be required to negotiate with parcel owners and the railroad complete property acquisition.	Delays in right-of-way acquisitions are impacting the advertisement and construction of the project. BATA and Caltrans are reviewing methods to accelerate the right-of-way procurement and begin the project. Also, the construction contract will be advertised with an A+B specification, which could reduce the construction duration and partially recover the project schedule.
Bids received on the I-238 Widening contract indicates that the construction estimate may be higher than currently forecasted, from \$196.3 million to \$216.8 million.	Caltrans and BATA will perform a further in-depth review of the estimated costs of major contract items.



## Project Photographs:



*Interstate 880/State Route 92 Interchange  
BEFORE*



*Interstate 880/State Route 92 Interchange  
AFTER*

## Regional Measure 1 Program

### Other Completed Regional Measure 1 (RM1) Projects

**Summary Description:** Other completed Regional Measure 1 projects are the following: (a) Widen the San Mateo-Hayward Bridge along its low-trestle section and its eastern approach; (b) Widen the Bayfront Expressway (SR 84) from the Dumbarton Bridge to the U.S. 101/Marsh Road interchange; (c) Construct an eastern approach (Richmond Parkway) between the Richmond-San Rafael Bridge and Interstate 80 near Pinole; (d) Modify the U.S. 101/University Avenue interchange; (e) Richmond-San Rafael Bridge Trestle, Fender and Deck Joint Rehabilitation Project; and (f) Richmond-San Rafael Bridge Deck Overlay Project.

#### Other Completed RM1 Projects Cost Summary (\$Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	Variance
a	B	c	d = b + c	e	f	g = f - d
San Mateo-Hayward Bridge Widening Project	217.8	-	217.8	208.7	211.9	(5.9)
Bayfront Expressway Widening Project	36.1	-	36.1	33.2	36.1	-
Richmond Parkway Project	5.9	-	5.9	3.9	5.9	-
U.S. 101/University Interchange	3.8	-	3.8	3.7	3.8	-
RSR Trestle, Fender, and Joint Rehabilitation	102.1	-	102.1	79.9	97.1	(5.0)
RSR Deck Overlay	25.0	-	25.0	18.8	25.0	-
<b>TOTAL</b>	<b>390.7</b>	<b>-</b>	<b>390.7</b>	<b>348.2</b>	<b>379.8</b>	<b>(10.9)</b>

#### Schedule Summary

Project	Actual Project Completion Date
Richmond Parkway Project	May 2001
San Mateo-Hayward Bridge Widening Project	February 2003
Bayfront Expressway Widening Project	January 2004
U.S. 101/University Interchange	April 2004
Richmond-San Rafael Bridge Trestle, Fender and Deck Joint Rehabilitation	August 2005
RSR Deck Overlay	December 2006

**Project Status:** Construction has been completed on the above listed contracts.

**Project Issues:** None.



San Mateo-Hayward Bridge Widening Project completed in 2002

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## APPENDICES

- A** Toll Bridge Seismic Retrofit Program:  
San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost  
Detail
- B** Toll Bridge Seismic Retrofit Program Cost Detail
- C** Toll Bridge Seismic Retrofit Program Summary Schedule
- D** Regional Measure 1 Program Cost Detail
- E** Regional Measure 1 Program Summary Schedule

*\* Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with Risk Analysis assessments for the TBSRP Projects and the TBSRP Quarterly Reports.*

## Appendix A: Toll Bridge Seismic Retrofit Program (\$Millions)

**San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost Detail**

Contract	EA Number	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>San Francisco-Oakland Bay Bridge East Span Replacement Project</b>							
<b>East Span - Skyway</b>	<b>01202X</b>						
Capital Outlay Support		197.0	-	197.0	156.0	197.0	-
Capital Outlay Construction		1,293.0	-	1,293.0	1,119.5	1,293.0	-
<b>Total</b>		1,490.0	-	1,490.0	1,275.5	1,490.0	-
<b>East Span - SAS E2/T1 Foundations</b>	<b>0120EX</b>						
Capital Outlay Support		52.5	-	52.5	18.3	52.5	-
Capital Outlay Construction		313.5	-	313.5	199.3	313.5	-
<b>Total</b>		366.0	-	366.0	217.6	366.0	-
<b>East Span - SAS Superstructure</b>	<b>0120FX</b>						
Capital Outlay Support		214.6	-	214.6	29.9	214.6	-
Capital Outlay Construction		1,753.7	-	1,753.7	219.6	1,767.4	13.7
<b>Total</b>		1,968.3	-	1,968.3	249.5	1,982.0	13.7
<b>SAS W2 Foundations</b>	<b>0120CX</b>						
Capital Outlay Support		10.0	-	10.0	9.2	10.0	-
Capital Outlay Construction		26.4	-	26.4	25.8	26.4	-
<b>Total</b>		36.4	-	36.4	35.0	36.4	-
<b>YBI South/South Detour</b>	<b>0120RX</b>						
Capital Outlay Support		29.5	-	29.5	18.7	29.5	-
Capital Outlay Construction		131.9	-	131.9	39.5	334.4	202.5
<b>Total</b>		161.4	-	161.4	58.2	363.9	202.5
<b>YBI Transition Structures</b>	<b>0120PX</b>						
Capital Outlay Support		78.7	-	78.7	12.3	78.7	-
Capital Outlay Construction		299.3	-	299.3	-	276.1	(23.2)
<b>Total</b>		378.0	-	378.0	12.3	354.8	(23.2)
<b>Oakland Touchdown (see notes below)</b>	<b>01204X</b>						
Capital Outlay Support		74.4	-	74.4	23.4	92.1	17.7
Capital Outlay Construction		283.8	-	283.8	-	302.5	18.7
<b>Total</b>		358.2	-	358.2	23.4	394.6	36.4
<b>* OTD Submarine Cable</b>	<b>0120K4</b>						
Capital Outlay Support					0.4	3.0	
Capital Outlay Construction					-	9.6	
<b>Total</b>					0.4	12.6	
<b>* OTD No. 1 (Westbound)</b>	<b>0120L4</b>						
Capital Outlay Support					2.8	49.9	
Capital Outlay Construction					-	226.5	
<b>Total</b>					2.8	276.4	
<b>* OTD No. 2 (Eastbound)</b>	<b>0120M4</b>						
Capital Outlay Support					0.2	15.8	
Capital Outlay Construction					-	62.0	
<b>Total</b>					0.2	77.8	
<b>* OTD Electrical Systems</b>	<b>0120N4</b>						
Capital Outlay Support					-	1.4	
Capital Outlay Construction					-	4.4	
<b>Total</b>					-	5.8	

Notes: Oakland Touchdown Cost-to-Date and Cost Forecast includes prior-to-split Capital Outlay Support Costs.

Note: Details may not sum to totals due to rounding effects.



## Appendix A: Toll Bridge Seismic Retrofit Program (\$Millions)

**San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost Detail (Cont'd.)**

Contract	EA Number	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>Existing Bridge Demolition</b>	<b>01209X</b>						
Capital Outlay Support		79.7	-	79.7	0.3	79.7	-
Capital Outlay Construction		239.2	-	239.2	-	222.0	(17.2)
<b>Total</b>		318.9	-	318.9	0.3	301.7	(17.2)
<b>YBI/SAS Archeology</b>	<b>01207X</b>						
Capital Outlay Support		1.1	-	1.1	1.1	1.1	-
Capital Outlay Construction		1.1	-	1.1	1.1	1.1	-
<b>Total</b>		2.2	-	2.2	2.2	2.2	-
<b>YBI - USCG Road Relocation</b>	<b>0120QX</b>						
Capital Outlay Support		3.0	-	3.0	2.7	3.0	-
Capital Outlay Construction		3.0	-	3.0	2.8	3.0	-
<b>Total</b>		6.0	-	6.0	5.5	6.0	-
<b>YBI - Substation and Viaduct</b>	<b>0120GX</b>						
Capital Outlay Support		6.5	-	6.5	6.4	6.5	-
Capital Outlay Construction		11.6	-	11.6	11.3	11.6	-
<b>Total</b>		18.1	-	18.1	17.7	18.1	-
<b>Oakland Geofill</b>	<b>01205X</b>						
Capital Outlay Support		2.5	-	2.5	2.5	2.5	-
Capital Outlay Construction		8.2	-	8.2	8.2	8.2	-
<b>Total</b>		10.7	-	10.7	10.7	10.7	-
<b>Pile Installation Demonstration Project</b>	<b>01208X</b>						
Capital Outlay Support		1.8	-	1.8	1.8	1.8	-
Capital Outlay Construction		9.2	-	9.2	9.2	9.2	-
<b>Total</b>		11.0	-	11.0	11.0	11.0	-
<b>Stormwater Treatment Measures</b>	<b>0120JX</b>						
Capital Outlay Support		6.0	-	6.0	6.1	7.0	1.0
Capital Outlay Construction		15.0	-	15.0	7.3	15.0	-
<b>Total</b>		21.0	-	21.0	13.4	22.0	1.0
<b>Right-of-Way and Environmental Mitigation</b>	<b>0120X9</b>						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay & Right-of-Way		72.4	-	72.4	38.8	72.4	-
<b>Total</b>		72.4	-	72.4	38.8	72.4	-
	<b>04343X &amp; 04300X</b>						
<b>Sunk Cost - Existing East Span Retrofit</b>							
Capital Outlay Support		39.5	-	39.5	39.5	39.5	-
Capital Outlay Construction		30.8	-	30.8	30.8	30.8	-
<b>Total</b>		70.3	-	70.3	70.3	70.3	-
<b>Other Capital Outlay Support</b>							
Environmental Phase		97.7	-	97.7	97.7	97.7	-
Pre-Split Project Expenditures		44.9	-	44.9	44.9	44.9	-
Non-project Specific Costs		20.0	-	20.0	3.2	19.0	(1.0)
<b>Total</b>		162.6	-	162.6	145.8	161.6	(1.0)
<b>Subtotal Capital Outlay Support</b>		959.4	-	959.4	474.0	977.1	17.7
<b>Subtotal Capital Outlay Construction</b>		4,492.1	-	4,492.1	1,713.2	4,686.6	194.5
<b>Other Budgeted Capital</b>		35.1	-	35.1	0.6	11.0	(24.1)
<b>Total SFOBB East Span Replacement Project</b>		<b>5,486.6</b>	<b>-</b>	<b>5,486.6</b>	<b>2,187.8</b>	<b>5,674.7</b>	<b>188.1</b>

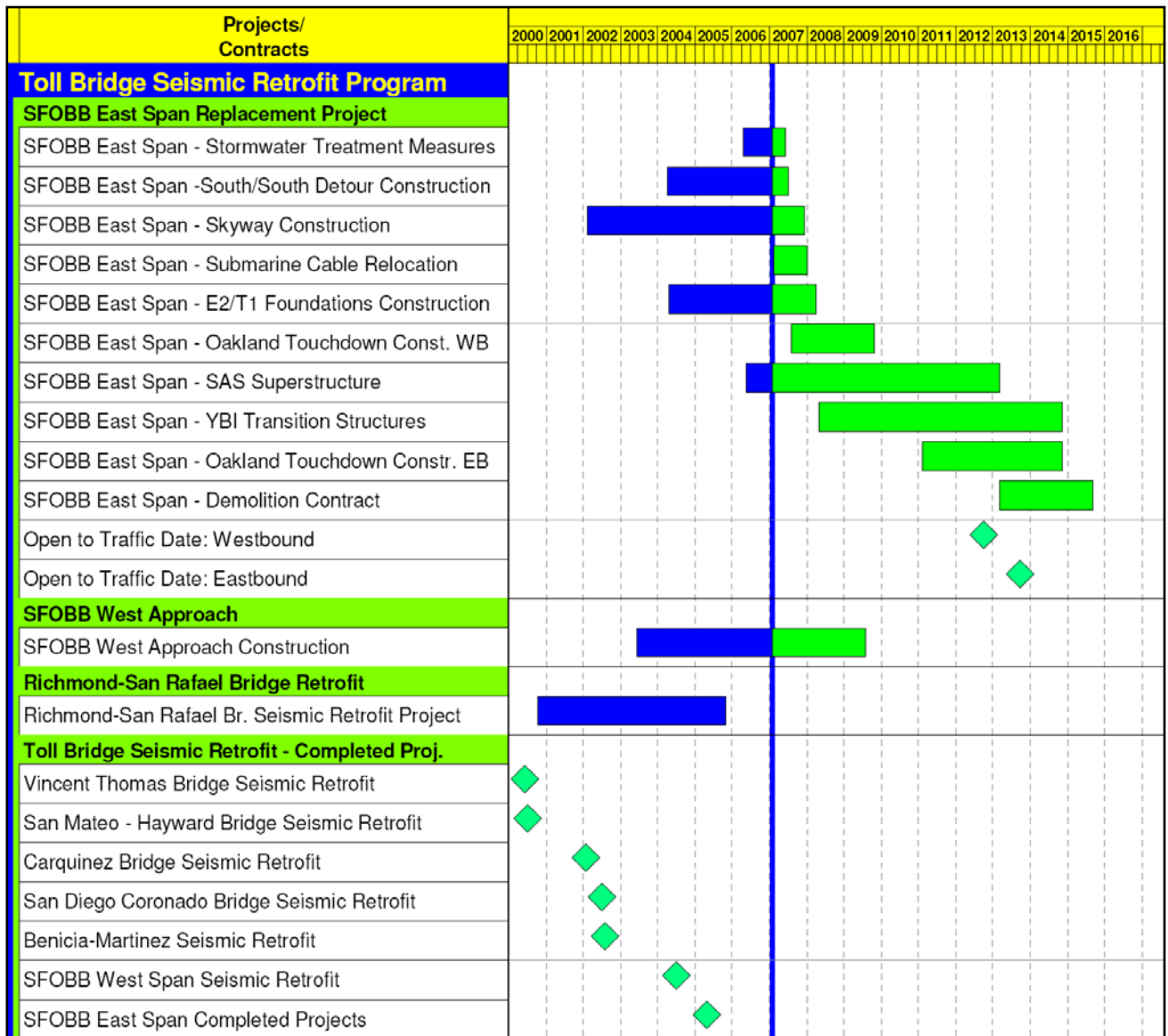
Note: Details may not sum to totals due to rounding effects.

## Appendix B: Toll Bridge Seismic Retrofit Program Cost Detail (\$Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
<b>SFOBB East Span Replacement Project</b>						
Capital Outlay Support	959.4	-	959.4	474.0	977.1	17.7
Capital Outlay Construction	4,492.1	-	4,492.1	1,713.2	4,686.6	194.5
Other Budgeted Capital	35.1	-	35.1	0.6	11.0	(24.1)
<b>Total</b>	<b>5,486.6</b>	<b>-</b>	<b>5,486.6</b>	<b>2,187.8</b>	<b>5,674.7</b>	<b>188.1</b>
<b>SFOBB West Approach Replacement</b>						
Capital Outlay Support	120.0	-	120.0	88.2	120.0	-
Capital Outlay Construction	309.0	-	309.0	226.6	309.0	-
<b>Total</b>	<b>429.0</b>	<b>-</b>	<b>429.0</b>	<b>314.8</b>	<b>429.0</b>	<b>-</b>
<b>SFOBB West Span Retrofit</b>						
Capital Outlay Support	75.0	-	75.0	74.8	75.0	-
Capital Outlay Construction	232.9	-	232.9	226.3	232.9	-
<b>Total</b>	<b>307.9</b>	<b>-</b>	<b>307.9</b>	<b>301.1</b>	<b>307.9</b>	<b>-</b>
<b>Richmond-San Rafael Bridge Retrofit</b>						
Capital Outlay Support	134.0	(7.0)	127.0	125.8	127.0	-
Capital Outlay Construction	780.0	(82.0)	698.0	665.6	698.0	-
<b>Total</b>	<b>914.0</b>	<b>(89.0)</b>	<b>825.0</b>	<b>791.4</b>	<b>825.0</b>	<b>-</b>
<b>Benicia-Martinez Bridge Retrofit</b>						
Capital Outlay Support	38.1	-	38.1	38.1	38.1	-
Capital Outlay Construction	139.7	-	139.7	139.7	139.7	-
<b>Total</b>	<b>177.8</b>	<b>-</b>	<b>177.8</b>	<b>177.8</b>	<b>177.8</b>	<b>-</b>
<b>Carquinez Bridge Retrofit</b>						
Capital Outlay Support	28.7	-	28.7	28.8	28.7	-
Capital Outlay Construction	85.5	-	85.5	85.4	85.5	-
<b>Total</b>	<b>114.2</b>	<b>-</b>	<b>114.2</b>	<b>114.2</b>	<b>114.2</b>	<b>-</b>
<b>San Mateo-Hayward Bridge Retrofit</b>						
Capital Outlay Support	28.1	-	28.1	28.1	28.1	-
Capital Outlay Construction	135.4	-	135.4	135.3	135.4	-
<b>Total</b>	<b>163.5</b>	<b>-</b>	<b>163.5</b>	<b>163.4</b>	<b>163.5</b>	<b>-</b>
<b>Vincent Thomas Bridge Retrofit (Los Angeles)</b>						
Capital Outlay Support	16.4	-	16.4	16.4	16.4	-
Capital Outlay Construction	42.1	-	42.1	42.0	42.1	-
<b>Total</b>	<b>58.5</b>	<b>-</b>	<b>58.5</b>	<b>58.4</b>	<b>58.5</b>	<b>-</b>
<b>San Diego-Coronado Bridge Retrofit</b>						
Capital Outlay Support	33.5	-	33.5	33.2	33.5	-
Capital Outlay Construction	70.0	-	70.0	69.4	70.0	-
<b>Total</b>	<b>103.5</b>	<b>-</b>	<b>103.5</b>	<b>102.6</b>	<b>103.5</b>	<b>-</b>
<b>Subtotal Capital Outlay Support</b>	<b>1,433.2</b>	<b>(7.0)</b>	<b>1,426.2</b>	<b>907.4</b>	<b>1,443.9</b>	<b>17.7</b>
<b>Subtotal Capital Outlay</b>	<b>6,286.7</b>	<b>(82.0)</b>	<b>6,204.7</b>	<b>3,303.5</b>	<b>6,399.2</b>	<b>194.5</b>
<b>Subtotal Other Budgeted Capital</b>	<b>35.1</b>	<b>-</b>	<b>35.1</b>	<b>0.6</b>	<b>11.0</b>	<b>(24.1)</b>
<b>Miscellaneous Program Costs</b>	<b>30.0</b>	<b>-</b>	<b>30.0</b>	<b>24.7</b>	<b>30.0</b>	<b>-</b>
<b>Subtotal Toll Bridge Seismic Retrofit Program</b>	<b>7,785.0</b>	<b>(89.0)</b>	<b>7,696.0</b>	<b>4,236.2</b>	<b>7,884.1</b>	<b>188.1</b>
<b>Program Contingency</b>	<b>900.0</b>	<b>89.0</b>	<b>989.0</b>	<b>-</b>	<b>800.9</b>	<b>(188.1)</b>
<b>Total Toll Bridge Seismic Retrofit Program</b>	<b>8,685.0</b>	<b>-</b>	<b>8,685.0</b>	<b>4,236.2</b>	<b>8,685.0</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects.

## Appendix C: Toll Bridge Seismic Retrofit Program Summary Schedule



## Appendix D: Regional Measure 1 Program Cost Detail (\$Millions)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>New Benicia-Martinez Bridge Project</b>							
<b>New Bridge</b>	<b>00603_</b>						
Capital Outlay Support		84.9	7.7	92.6	83.2	92.6	-
Capital Outlay Construction				-			-
BATA Funding		661.9	100.9	762.8	710.1	762.8	-
Non-BATA Funding		10.1	-	10.1	13.9	10.1	-
Subtotal		672.0	100.9	772.9	724.0	772.9	-
<b>Total</b>		756.9	108.6	865.5	807.2	865.5	-
<b>I-680/I-780 Interchange Reconstruction</b>							
<b>I-680/I-780 Interchange Reconstruction</b>	<b>00606_</b>						
Capital Outlay Support							
BATA Funding		24.9	4.0	28.9	28.2	28.9	-
Non-BATA Funding		1.4	5.1	6.5	5.5	6.5	-
Subtotal		26.3	9.1	35.4	33.7	35.4	-
Capital Outlay Construction							
BATA Funding		54.7	22.5	77.2	67.6	77.2	-
Non-BATA Funding		21.6	-	21.6	15.4	21.6	-
Subtotal		76.3	22.5	98.8	83.0	98.8	-
<b>Total</b>		102.6	31.6	134.2	116.7	134.2	-
<b>I-680/Marina Vista Interchange Reconstruction</b>							
<b>I-680/Marina Vista Interchange Reconstruction</b>	<b>00605_</b>						
Capital Outlay Support		18.3	1.2	19.5	19.7	19.5	-
Capital Outlay Construction		51.5	8.1	59.6	54.7	59.6	-
<b>Total</b>		69.8	9.3	79.1	74.4	79.1	-
<b>New Toll Plaza and Administration Building</b>							
<b>New Toll Plaza and Administration Building</b>	<b>00604_</b>						
Capital Outlay Support		11.9	3.3	15.2	15.0	15.2	-
Capital Outlay Construction		24.3	2.0	26.3	22.8	26.3	-
<b>Total</b>		36.2	5.3	41.5	37.8	41.5	-
<b>Existing Bridge &amp; Interchange Modifications</b>							
<b>Existing Bridge &amp; Interchange Modifications</b>	<b>0060A_</b>						
Capital Outlay Support		4.3	5.7	10.0	6.3	10.0	-
Capital Outlay Construction		17.2	10.9	28.1	-	28.1	-
<b>Total</b>		21.5	16.6	38.1	6.3	38.1	-
<b>Other Contracts</b>							
<b>Other Contracts</b>	<b>See note below</b>						
Capital Outlay Support		11.4	(2.3)	9.1	6.3	9.1	-
Capital Outlay Construction		20.3	(1.3)	19.0	15.2	19.0	-
Capital Outlay Right-of-Way		20.4	(0.1)	20.3	12.3	20.3	-
<b>Total</b>		52.1	(3.7)	48.4	33.8	48.4	-
<b>Subtotal BATA Capital Outlay Support</b>		155.7	19.7	175.3	158.7	175.3	-
<b>Subtotal BATA Capital Outlay Construction</b>		829.9	143.1	973.0	870.4	973.0	-
<b>Subtotal Capital Outlay Right-of-Way</b>		20.4	(0.1)	20.3	12.3	20.3	-
<b>Subtotal Non-BATA Capital Outlay Support</b>		1.4	5.1	6.5	5.5	6.5	-
<b>Subtotal Non-BATA Capital Outlay Construction</b>		31.7	-	31.7	29.3	31.7	-
<b>Project Reserves</b>		20.8	35.3	56.2	-	56.2	-
<b>Total New Benicia-Martinez Bridge Project</b>		<b>1,059.9</b>	<b>203.1</b>	<b>1,263.0</b>	<b>1,076.2</b>	<b>1,263.0</b>	<b>-</b>

## Notes:

Includes EA's 00601\_, 00608\_, 00609\_, 0060A\_, 0060C\_, 0060E\_, 0060F\_, 0060G\_, and 0060H\_ and all Project Right-of-Way

Note: Details may not sum to totals due to rounding effects.

## Appendix D: Regional Measure 1 Program Cost Detail (\$Millions) (Cont'd.)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>Carquinez Bridge Replacement Project</b>							
<b>New Bridge</b>	<b>01301_</b>						
Capital Outlay Support		60.5	(0.3)	60.2	60.1	60.2	-
Capital Outlay Construction		253.3	4.0	257.3	255.9	257.3	-
<b>Total</b>		313.8	3.7	317.5	316.0	317.5	-
<b>Crockett Interchange Reconstruction</b>	<b>01305_</b>						
Capital Outlay Support		32.0	(0.1)	31.9	31.9	31.9	-
Capital Outlay Construction		73.9	-	73.9	71.9	73.9	-
<b>Total</b>		105.9	(0.1)	105.8	103.8	105.8	-
<b>Existing 1927 Bridge Demolition</b>	<b>01309_</b>						
Capital Outlay Support		16.1	-	16.1	11.4	16.0	(0.1)
Capital Outlay Construction		35.2	-	35.2	23.5	35.2	-
<b>Total</b>		51.3	-	51.3	34.9	51.2	(0.1)
<b>Other Contracts</b>	<b>See note below</b>						
Capital Outlay Support		15.8	(0.7)	15.1	15.1	15.1	-
Capital Outlay Construction		18.8	(0.7)	18.1	15.3	17.9	(0.2)
Capital Outlay Right-of-Way		10.5	-	10.5	9.9	10.5	-
<b>Total</b>		45.1	(1.4)	43.7	40.3	43.5	(0.2)
<b>Subtotal BATA Capital Outlay Support</b>		124.4	(1.1)	123.3	118.5	123.2	(0.1)
<b>Subtotal BATA Capital Outlay Construction</b>		381.2	3.3	384.5	366.6	384.3	(0.2)
<b>Subtotal Capital Outlay Right-of-Way</b>		10.5	-	10.5	9.9	10.5	-
<b>Project Reserves</b>		12.1	(2.2)	9.9	-	10.2	0.3
<b>Total Carquinez Bridge Replacement Project</b>		<b>528.2</b>	<b>-</b>	<b>528.2</b>	<b>495.0</b>	<b>528.2</b>	<b>-</b>
<b>Notes:</b>	<b>Other Contracts includes EA's 01302_, 01303_, 01304_, 01306_, 01307_, 01308_, 0130A_, 0130C_, 0130D_, 0130F_, 0130G_, 0130H_, 0130J_, 00453_, 00493_, 04700_, 00607_, 2A270_, and 29920_ and all Project Right-of-Way</b>						

Note: Details may not sum to totals due to rounding effects.



## Appendix D: Regional Measure 1 Program Cost Detail (\$Millions) (Cont'd.)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (01/2007)	Cost To Date (01/2007)	Cost Forecast (01/2007)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation</b>	<b>See note <sup>1</sup> below</b>						
Capital Outlay Support							
BATA Funding		2.2	-	2.2	1.4	2.2	-
Non-BATA Funding		8.6	-	8.6	10.4	10.4	1.8
Subtotal		10.8	-	10.8	11.8	12.6	1.8
Capital Outlay Construction							
BATA Funding		40.2	-	40.2	33.4	33.4	(6.8)
Non-BATA Funding		51.1	-	51.1	34.7	51.1	-
Subtotal		91.3	-	91.3	68.1	84.5	(6.8)
Project Reserves		-	-	-	-	-	-
<b>Total</b>		<b>102.1</b>	<b>-</b>	<b>102.1</b>	<b>79.9</b>	<b>97.1</b>	<b>(5.0)</b>
<b>Richmond-San Rafael Bridge Deck Overlay Rehabilitation</b>	<b>0415U_</b>						
Capital Outlay Support							
BATA Funding		4.0	0.5	4.5	3.2	4.5	-
Non-BATA Funding		4.0	(4.0)	-	-	-	-
Subtotal		8.0	(3.5)	4.5	3.2	4.5	-
Capital Outlay Construction		16.9	3.6	20.5	15.6	20.5	-
Project Reserves		0.1	(0.1)	-	-	-	-
<b>Total</b>		<b>25.0</b>	<b>-</b>	<b>25.0</b>	<b>18.8</b>	<b>25.0</b>	<b>-</b>
<b>Richmond Parkway Project (RM 1 Share Only)</b>	<b>Non-Caltrans</b>						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay Construction		5.9	-	5.9	3.9	5.9	-
<b>Total</b>		<b>5.9</b>	<b>-</b>	<b>5.9</b>	<b>3.9</b>	<b>5.9</b>	<b>-</b>
<b>San Mateo-Hayward Bridge Widening</b>	<b>See note <sup>2</sup> below</b>						
Capital Outlay Support		34.6	(0.2)	34.4	34.1	34.4	-
Capital Outlay Construction		180.2	(1.1)	179.1	174.1	176.2	(2.9)
Capital Outlay Right-of-Way		1.5	-	1.5	0.5	0.6	(0.9)
Project Reserves		1.5	1.3	2.8	-	0.7	(2.1)
<b>Total</b>		<b>217.8</b>	<b>-</b>	<b>217.8</b>	<b>208.7</b>	<b>211.9</b>	<b>(5.9)</b>
<b>I-880/SR-92 Interchange Reconstruction</b>	<b>EA's 23317_, 01601_, and 01602_</b>						
Capital Outlay Support		28.8	-	28.8	30.7	51.7	22.9
Capital Outlay Construction							
BATA Funding		85.2	-	85.2	-	112.9	27.7
Non-BATA Funding		9.6	-	9.6	-	9.6	-
Subtotal		94.8	-	94.8	-	122.5	27.7
Capital Outlay Right-of-Way		9.9	-	9.9	8.1	12.4	2.5
Project Reserves		0.3	-	0.3	-	9.7	9.4
<b>Total</b>		<b>133.8</b>	<b>-</b>	<b>133.8</b>	<b>38.8</b>	<b>196.3</b>	<b>62.5</b>
<b>Bayfront Expressway Widening</b>	<b>EA's 00487_, 01511_, and 01512_</b>						
Capital Outlay Support		8.6	(0.3)	8.3	8.1	8.3	-
Capital Outlay Construction		26.5	-	26.5	24.9	26.5	-
Capital Outlay Right-of-Way		0.2	-	0.2	0.2	0.2	-
Project Reserves		0.8	0.3	1.1	-	1.1	-
<b>Total</b>		<b>36.1</b>	<b>-</b>	<b>36.1</b>	<b>33.2</b>	<b>36.1</b>	<b>-</b>
<b>US 101/University Avenue Interchange Modification</b>	<b>Non-Caltrans</b>						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay Construction		3.8	-	3.8	3.7	3.8	-
<b>Total</b>		<b>3.8</b>	<b>-</b>	<b>3.8</b>	<b>3.7</b>	<b>3.8</b>	<b>-</b>
<b>Subtotal BATA Capital Outlay Support</b>		<b>358.3</b>	<b>18.6</b>	<b>376.8</b>	<b>354.7</b>	<b>399.6</b>	<b>22.8</b>
<b>Subtotal BATA Capital Outlay Construction</b>		<b>1,569.8</b>	<b>148.9</b>	<b>1,718.7</b>	<b>1,492.6</b>	<b>1,736.5</b>	<b>17.8</b>
<b>Subtotal Capital Outlay Right-of-Way</b>		<b>42.5</b>	<b>(0.1)</b>	<b>42.4</b>	<b>31.0</b>	<b>44.0</b>	<b>1.6</b>
<b>Subtotal Non-BATA Capital Outlay Support</b>		<b>14.0</b>	<b>1.1</b>	<b>15.1</b>	<b>15.9</b>	<b>16.9</b>	<b>1.8</b>
<b>Subtotal Non-BATA Capital Outlay Construction</b>		<b>92.4</b>	<b>-</b>	<b>92.4</b>	<b>64.0</b>	<b>92.4</b>	<b>-</b>
<b>Project Reserves</b>		<b>35.6</b>	<b>34.6</b>	<b>70.3</b>	<b>-</b>	<b>77.9</b>	<b>7.6</b>
<b>Total RM1 Program</b>		<b>2,112.6</b>	<b>203.1</b>	<b>2,315.7</b>	<b>1,958.2</b>	<b>2,367.3</b>	<b>51.6</b>

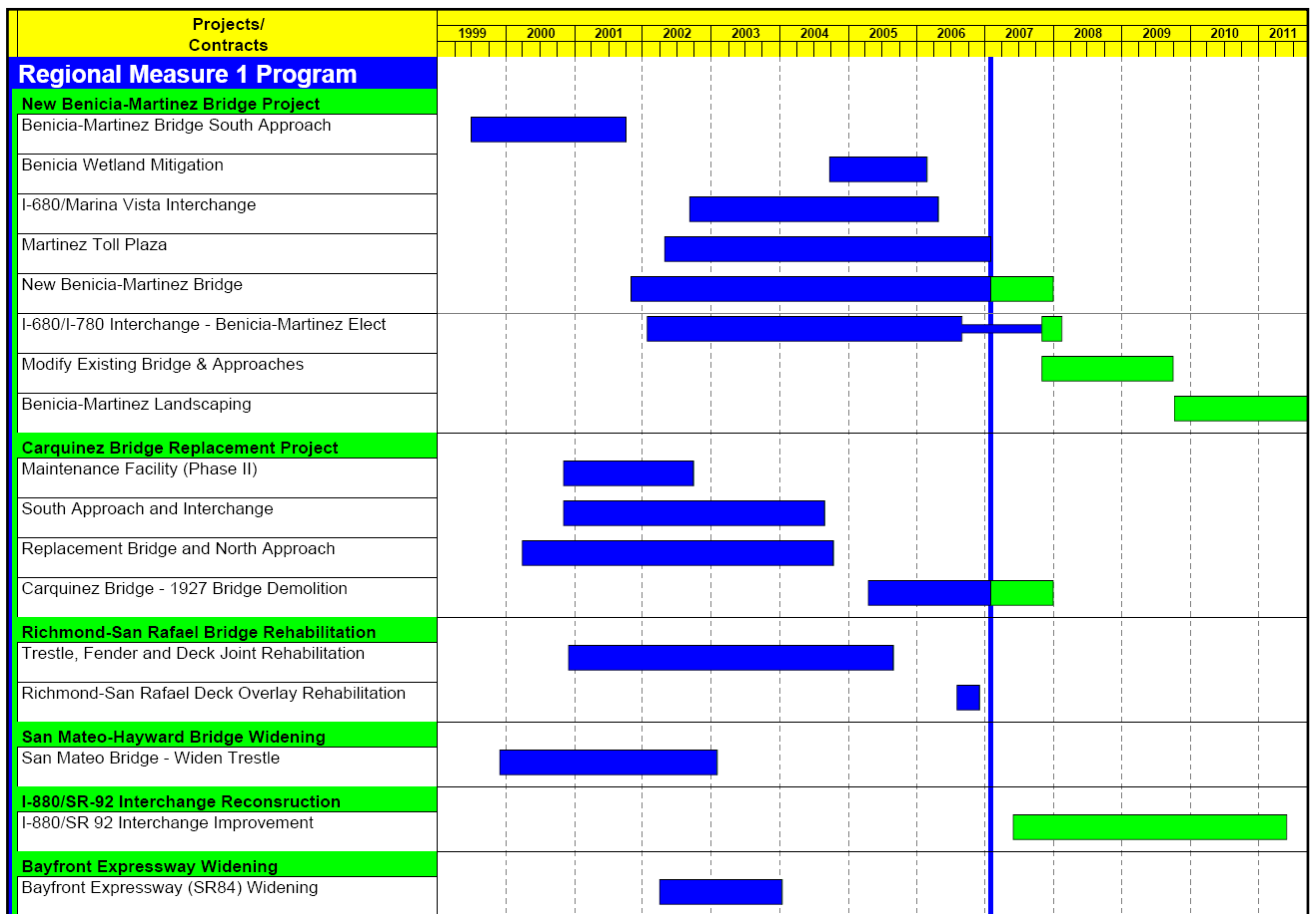
## Notes:

<sup>1</sup> Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Includes Non-TBSRA Expenses for EA 0438U\_ and 04157\_

<sup>2</sup> San Mateo-Hayward Bridge Widening Includes EA's 00305\_, 04501\_, 04502\_, 04503\_, 04504\_, 04505\_, 04506\_, 04507\_, 04508\_, 04509\_, 27740\_, 27790\_, 04860\_

Note: Details may not sum to totals due to rounding effects.

## Appendix E: Regional Measure 1 Program Summary Schedule



## Appendix F: Glossary of Terms

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**AB144/SB 66 BUDGET:** The planned allocation of resources for the Toll Bridge Seismic Retrofit Program, or subordinate projects or contracts, as provided in Assembly Bill 144 and Senate Bill 66, signed into law by Governor Schwarzenegger on July 18, 2005 and September 29, 2005, respectively.

**BATA BUDGET:** The planned allocation of resources for the Regional Measure 1 Program, or subordinate projects or contracts as authorized by the Bay Area Toll Authority as of June 2005.

**APPROVED CHANGES:** For cost, changes to the AB144/SB 66 Budget or BATA Budget as approved by the Bay Area Toll Authority Commission. For schedule, changes to the AB 144/SB 66 Project Complete Baseline approved by the Toll Bridge Program Oversight Committee, or changes to the BATA Project Complete Baseline approved by the Bay Area Toll Authority Commission.

**CURRENT APPROVED BUDGET:** The sum of the AB144/SB66 Budget or BATA Budget and Approved Changes.

**COST TO DATE:** The actual expenditures incurred by the program, project or contract as of the month and year shown.

**COST FORECAST:** The current forecast of all of the costs that are projected to be expended so as to complete the given scope of the program, project, or contract.

**AT COMPLETION VARIANCE or VARIANCE (cost):** The mathematical difference between the Cost Forecast and the Current Approved Budget.

**AB 144/SB 66 PROJECT COMPLETE BASELINE:** The planned completion date for the Toll Bridge Seismic Retrofit Program or subordinate projects or contracts.

**BATA PROJECT COMPLETE BASELINE:** The planned completion date for the Regional Measure 1 Program or subordinate projects or contracts.

**PROJECT COMPLETE CURRENT APPROVED SCHEDULE:** The sum of the AB144/SB66 Project Complete Baseline or BATA Project Complete Baseline and Approved Changes.

**PROJECT COMPLETE SCHEDULE FORECAST:** The current projected date for the completion of the program, project, or contract.

**SCHEDULE VARIANCE or VARIANCE (schedule):** The mathematical difference expressed in months between the Project Complete Schedule Forecast and the Project Complete Current Approved Schedule.

The following information is provided in accordance with California Government code Section 7550:

This document is one of a series of reports prepared for the Bay Area Toll Authority (BATA)/Metropolitan Transportation Commission (MTC) for the Toll Bridge Seismic Retrofit and Regional Measure 1 Programs. The contract value for the monitoring efforts, technical analysis, and field site works that contribute to these reports, as well as the report preparation and production, is \$1,574,873.

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